



Villbek Ladders

by  **HACA**
LEITERN



A

TWO STILE LADDERS

- For normal applications
 - For the shaft
 - For waterworks
 - Pipe connector series „0520“

B

SINGLE STILE LADDERS

- fixed ladders made of steel
- fixed ladders made of aluminium
- mobile single stile ladders

C

FALL ARREST SYSTEM

- vertical
- horizontal
- step irons

D

CLIMBING AID

- HACA-Clifter

E

PERSONAL PROTECTIVE EQUIPMENT

- guided type fall arresters
- safety harness, ropes and accessories

S

TRAININGS

i

INFO + SERVICE

The prices are valid until 30. 06. 2020.

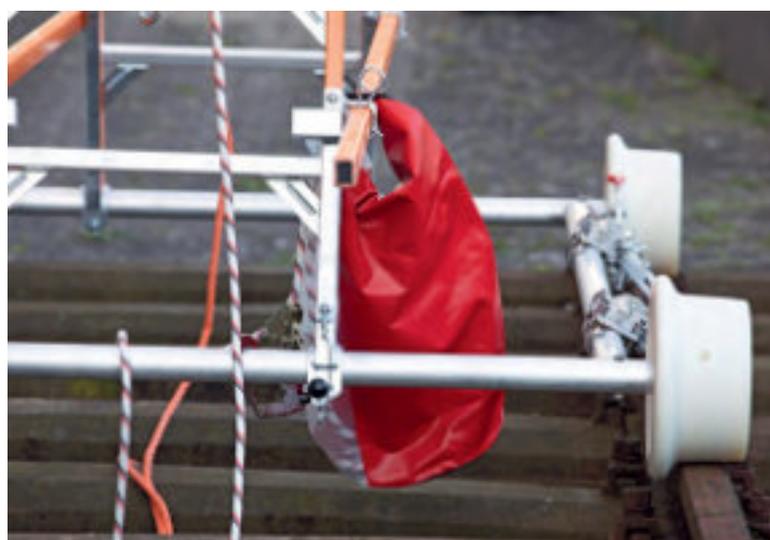
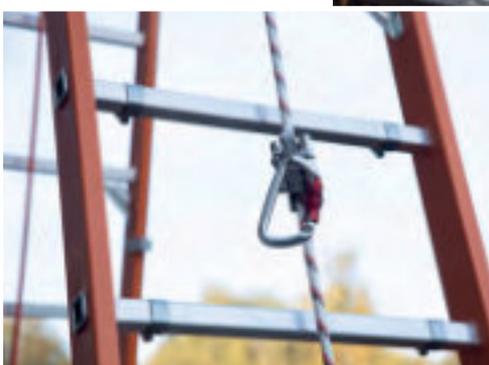
We reserve the right to increase the prices from 01. 07. 2020.

Edition February 2020 (Part A, B, C and D Discount Group A; Part E Discount Group D)

HACA New products 2020

The new HACA ladder type 2347 with track carriage has a rope-based fall protection system that prevents falls from the ladder. More details can be found in the catalogue for mobile ladders, page E.21.

With this ladder all requirements of the general decree «Track mobile ladders» of the Deutsche Bahn are fulfilled.



HACA New products 2020

As an alternative to the track ladder, we also have two mobile scaffolds for work on the track. You can choose between a model made of aluminium or fibreglass. More details can be found in the catalogue for mobile ladders, page E.24.



HACA New products 2020

The new rules of TRBS2121-2 only allow working on ladders if you stand with both feet on a step or platform. But so that you do not have to dispose of all rung ladders, we have developed a functional solution for you: With the WorkStep working step with fixing screws you can easily and cost-effectively retrofit your existing rung ladders. You can find more details in the catalog for mobile ladders, section rung and glass cleaner ladders.



For more safety and comfort when climbing and working, you now receive a range of self-assembly safety railing for HACAsteps with a height of more than 750mm and a standing surface of more than 200 x 300mm. More details can be found in the catalogue for mobile ladders, page A.30.

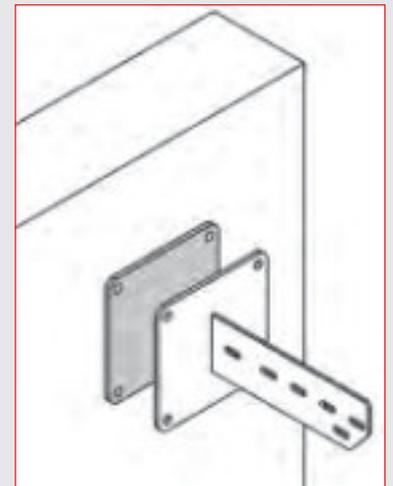


You already know our online configurator at www.haca.com for fixed ladder systems. Now we have extended our offer for you by a configurator for VarioStep self-constructing stairs.

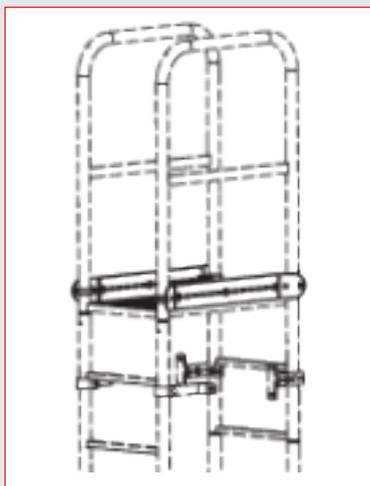
HACA New products 2020



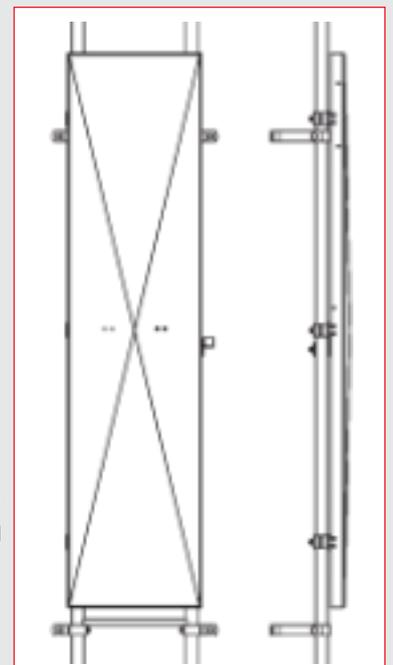
The new HACAfall fall arrester type 0529.74.30 has been specially optimised for use in mobile communications and for use on the HACAaluminium single stile ladder type 643x. With this model you will experience a smooth running behaviour especially on this type of rail. More details can be found in the catalogue for fixed ladders, page E.08.



As a further innovation in the field of fixed ladders, you can purchase a thermal break from HACA from this year on. This is designed for wall brackets with 4-hole mounting. More details can be found in the catalogue for fixed ladders, page A.45.



As a reaction to changes in standards, we offer foot railings for fixed installation as a retrofit kit for crossing elements. The kit contains a variable baseboard that can be adapted to the existing step-over part. More details can be found in the catalogue for fixed ladders, page A.47.



This year you will find in our assortment a new ladder guard according to DIN 18799 in simple design. You can find more details in the catalogue for fixed ladders, page A.53.



For wall insulations of 200 mm we offer a new wall bracket. Details can be found in the catalogue fixed ladders, page A.40.



HACA LEITERN

TWO STILE LADDERS



1888 - 2018
130 Jahre HACA-Leitern

2020

TWO STILE LADDERS

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A.08 – 09 PLANNING AID

TWO STILE LADDERS FOR NORMAL AREAS OF USE

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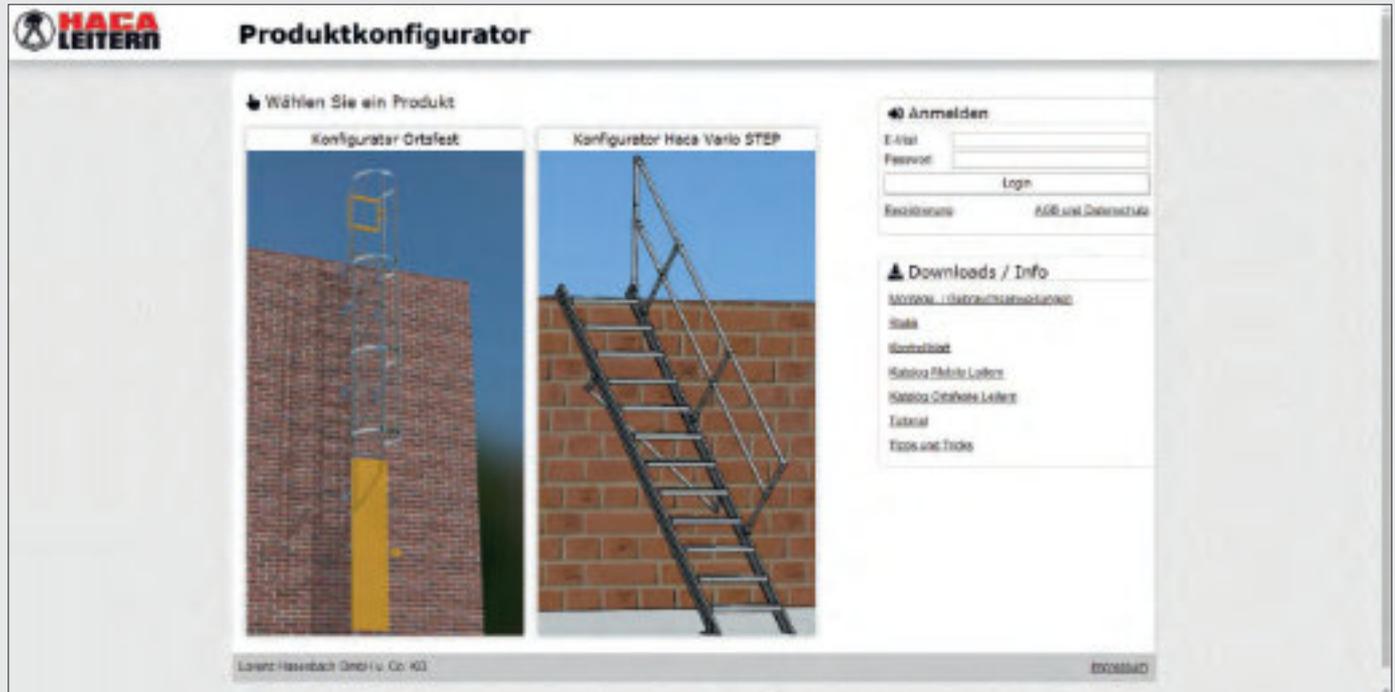
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The new HACA online configurator for fixed ladder systems and NEW for VarioStep constructions

You are probably already familiar with the HACAonline configurator for fixed ladder systems. The active use of this software on our homepage shows us the benefit for you as customers.

Therefore we have extended our offer for you and from now on you will also find the HACAonline configurator for **VarioStep constructions**.



In the past, the inquiry process for fixed installations and VarioStep products was often tedious: long service ranges, perhaps a hand sketch, dimensioning, writing and sending an enquiry text, etc. Today HACA offers you a different, modern and customer-friendly solution, which also saves you the waiting time for quotation prices or drawings: The HACAonline configurators!

Within minutes you can generate your own 3D image and drawing on your PC and at the end you receive for the fixed projects the price of the configured system, including a list of all used components and accessories. In case of order, this configuration will of course be checked by our competent sales team again.

The program itself also checks for conformity with standards for fixed installations and prevents ladder system contrary to your standard specification!

You can get access via our homepage www.haca.com. There is no password requested, you only have to register once.

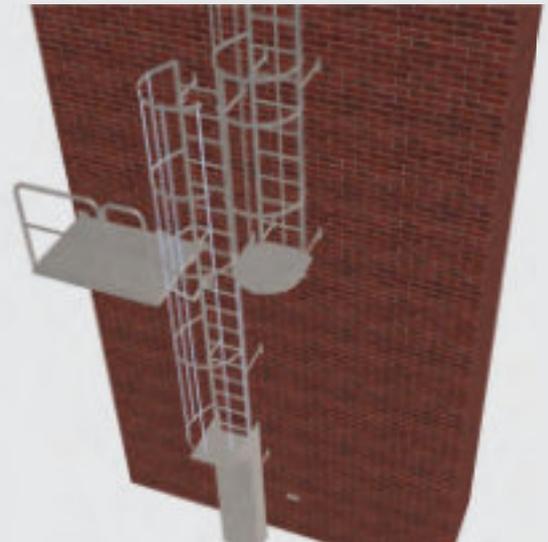
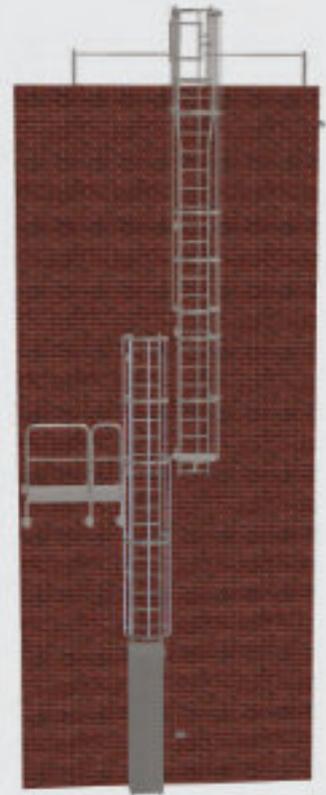
Later on, your created login will be sufficient to enter the portal. Here you will also find your already created configurations again and can access them.

For an unrestricted and optimized use of all features of the program we recommend the application with the browser Chrome.

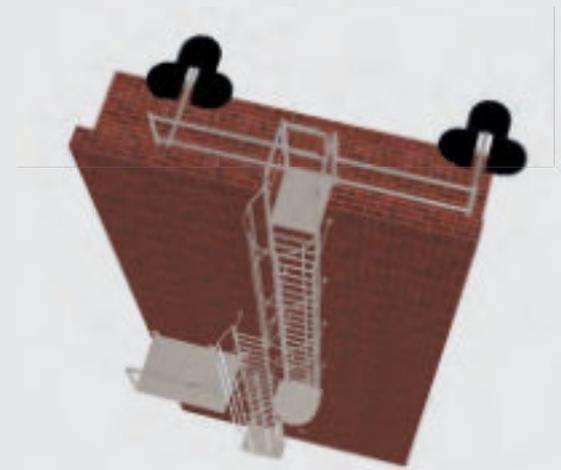
Of course you can still send us your requests in the usual way! We will be pleased to submit you an offer or answer your questions.

With the HACA Configurator for fixed ladders you can cover the following services:

- » Ascent heights from 2000 – 40000 mm
- » Standard-compliant designs of the ladder systems according to
 - DIN 14094
 - DIN 18799
 - ISO14122
- » Selection of fall protection type between
 - fall arrest rail
 - rear protection
 - no protection system
- » Amount of ladder tracks from 1–4
- » Execution of crossover parts as
 - standard
 - in kit
- » Lateral exit at top selectable
- » Retractable ladder selectable
- » Rung type
 - tube profile
 - U-profile
- » Style diameter
 - Ø 34 mm
 - Ø 48 mm
- » Exit variants with accessthrough to the front:
 - ladder hook
 - ladder hook with elongated short arms
 - rail extension straight
 - railing
 - ladder hook with long arms
- » Options for exit variants with crossingelement:
 - railing
 - counterweight



- » Platform for exit selectable
- » Small door selectable
- » Direct control of platform heights
- » Definition of additional lateral platforms and additional constructional accesses, 2 per ladder track (recommended for advanced users)
- » Distance between the ladder tracks
 - 0 – 5260 mm distance (in the grid of the platforms selectable)
- » Changing the wall brackets
 - wall material
 - wall distance
 - wall connection plate type
- » Foot plate selectable
 - automatically considers whether the ladder has to be shortened or not
- » safety device against climbing selectable
 - safety door
 - anti-transit device
 - locking plate
 - ladder guard complete



The configurator generates a 3D image on your screen, which changes in real time with every input / selection.

You have the possibility to generate drawings, step and DWG data after login.

A direct catalogue price appears at the end of the configuration, even without registration.

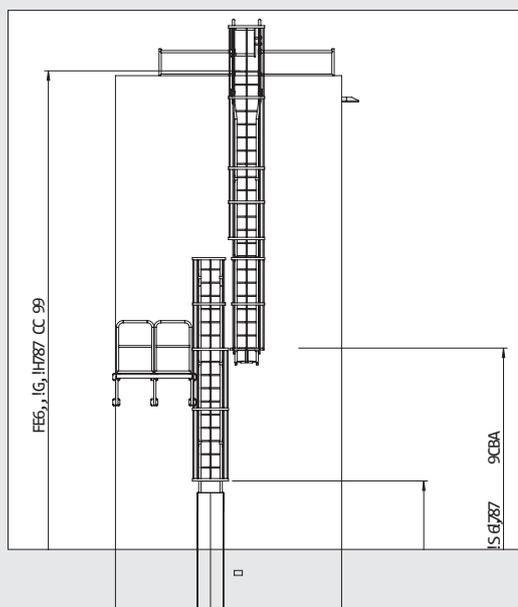
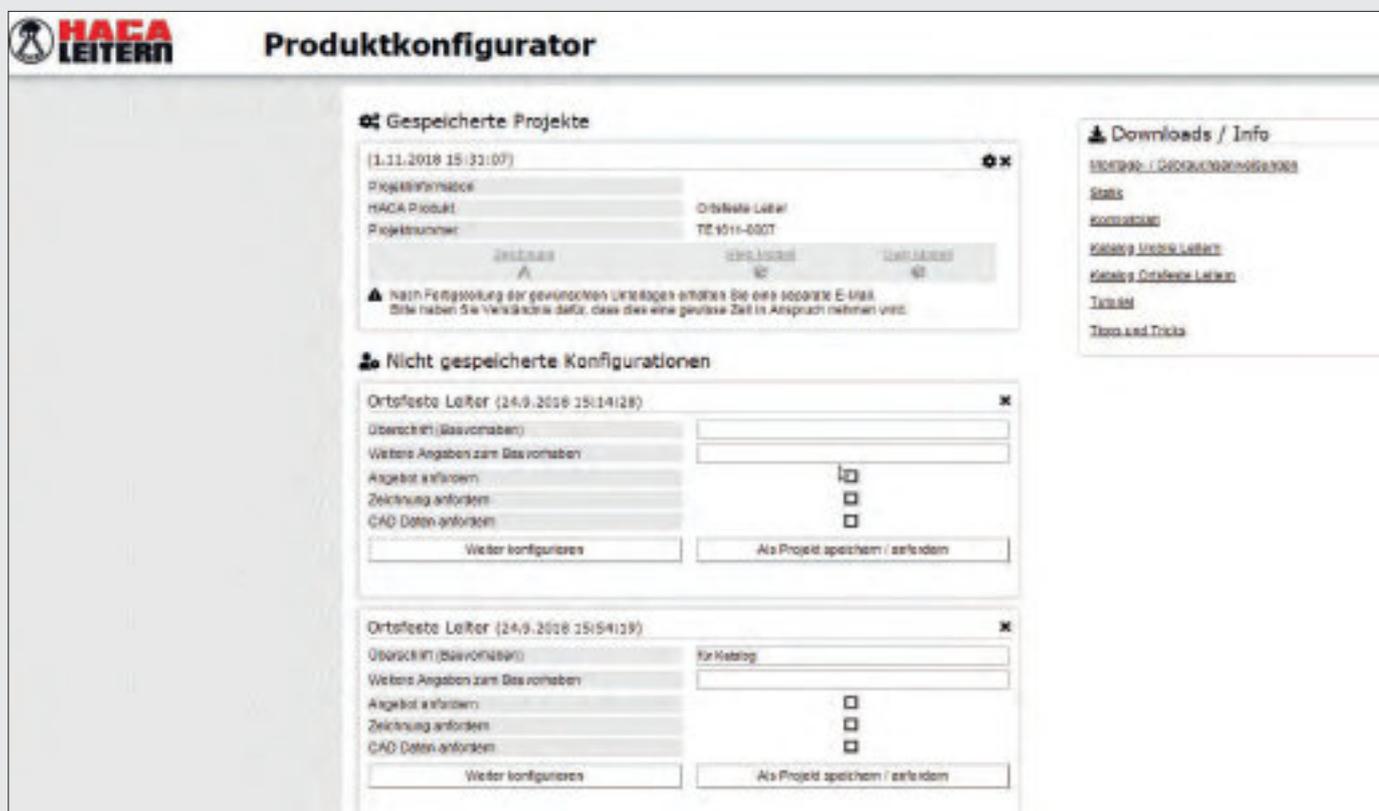
For each project you receive an overview drawing as a 3D model, which you can rotate and enlarge, according to your needs.



If your data entry is technically or concerning a standard incorrect, you will automatically receive a reference to the error and, at the same time, a proposal for its correction



If you are not logging into the Configurator for the first time, you will receive an overview of your projects and can call them up, edit or change them.



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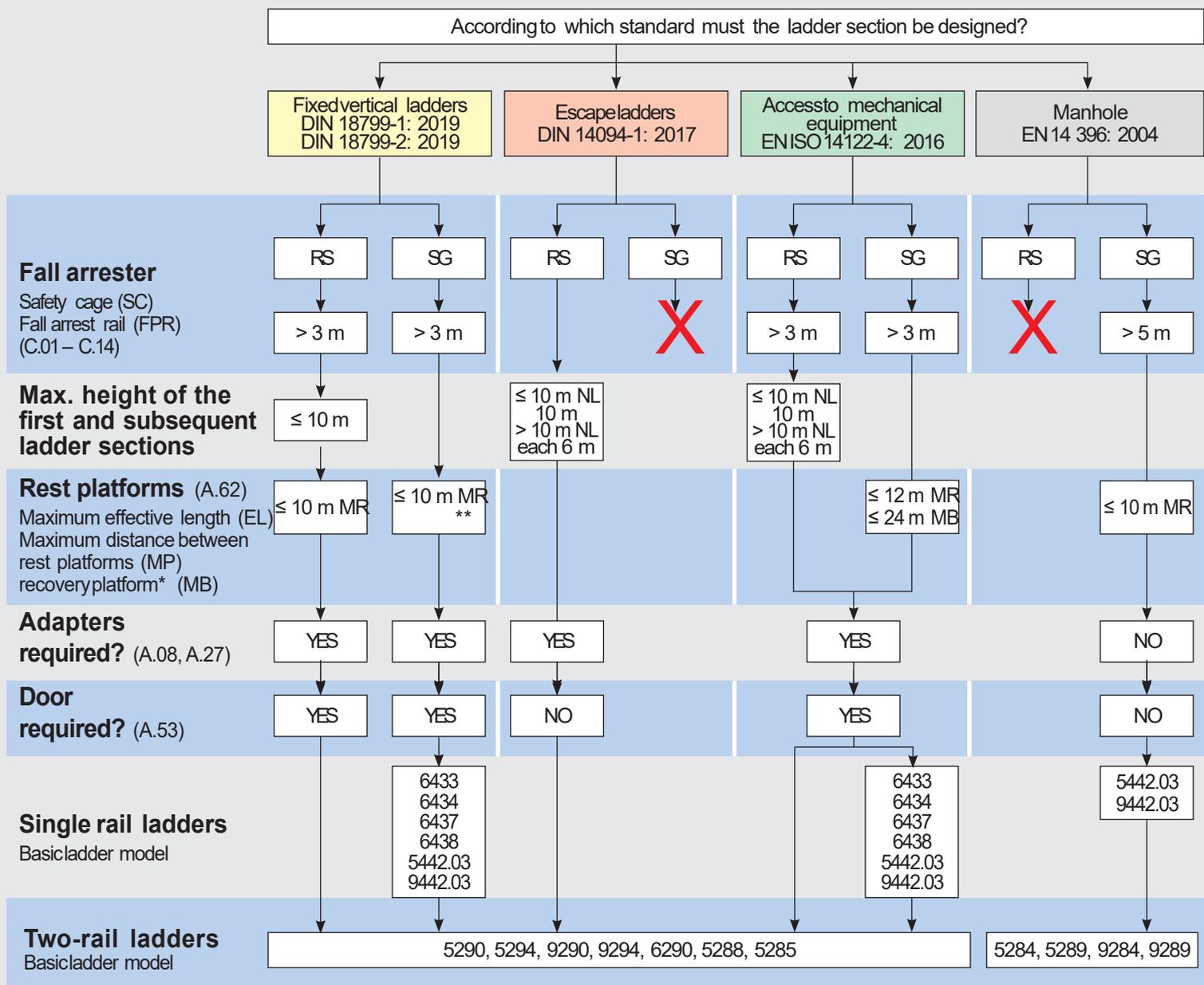
Planning aid for fixed ladders in acc. with standards

This planning aid is a support for you when planning and designing the right ladder for the right purpose of use. If you need more detailed information please contact our salesteam via hallo@haca.com.

1. Choice of the correct standard:

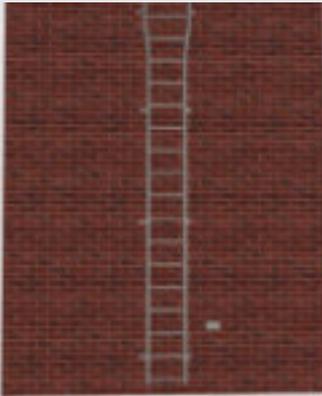
DIN 18799-1 -2: 2019	Fixed vertical ladders on buildings and structures
DIN 14094-1: 2017	Emergency ladders
DIN EN ISO 14122-4: 2016	Fixed access to mechanical equipment
DIN EN 14 396: 2004	Fixed vertical ladders for shafts

When planning fixed ladders we recommend that you involve the authorities responsible at the earliest possible stage.

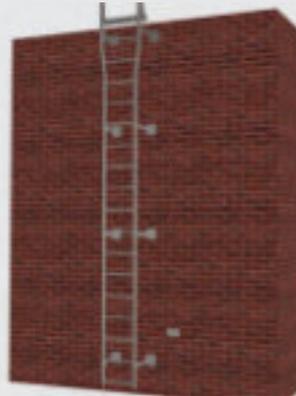


* On a recovery platform there is space for more than 1 person
A recovery platform is only required if there is more than one person on the track.
** For use only by experienced employees ≤ 25 m

On the following pages you will find a variety of ladders and accessories



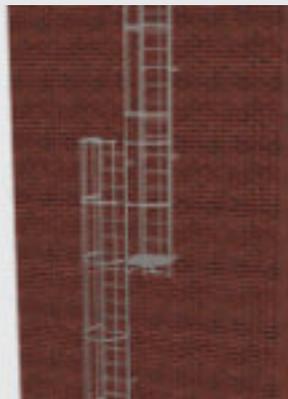
Basic ladders for various applications
A. 10 – A. 36



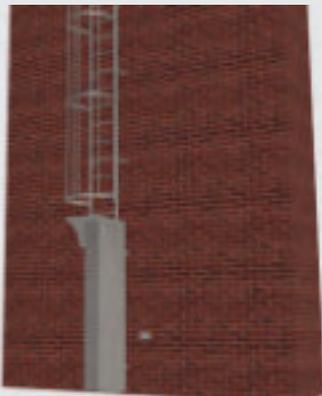
Wall brackets
A. 38 – A. 44



Accessories for top exit
A. 46 – A. 49



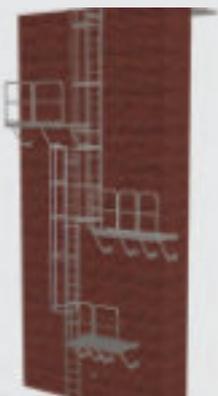
Rear protection, platforms and walkways
A. 50 – A. 52



Accessories for bottom entry
A. 53 – A. 54



Railing options on the roof
A. 55 – A. 60



Platforms and walkways
A. 61 – A. 63



Ladders and accessories for shafts
A. 34, A. 65 – A. 66

Planning aid for fixed ladders in acc. with standards

This planning aid is a support for you when planning and designing the right ladder for the right purpose of use. If you need more detailed information please contact our salesteam via hallo@haca.com.

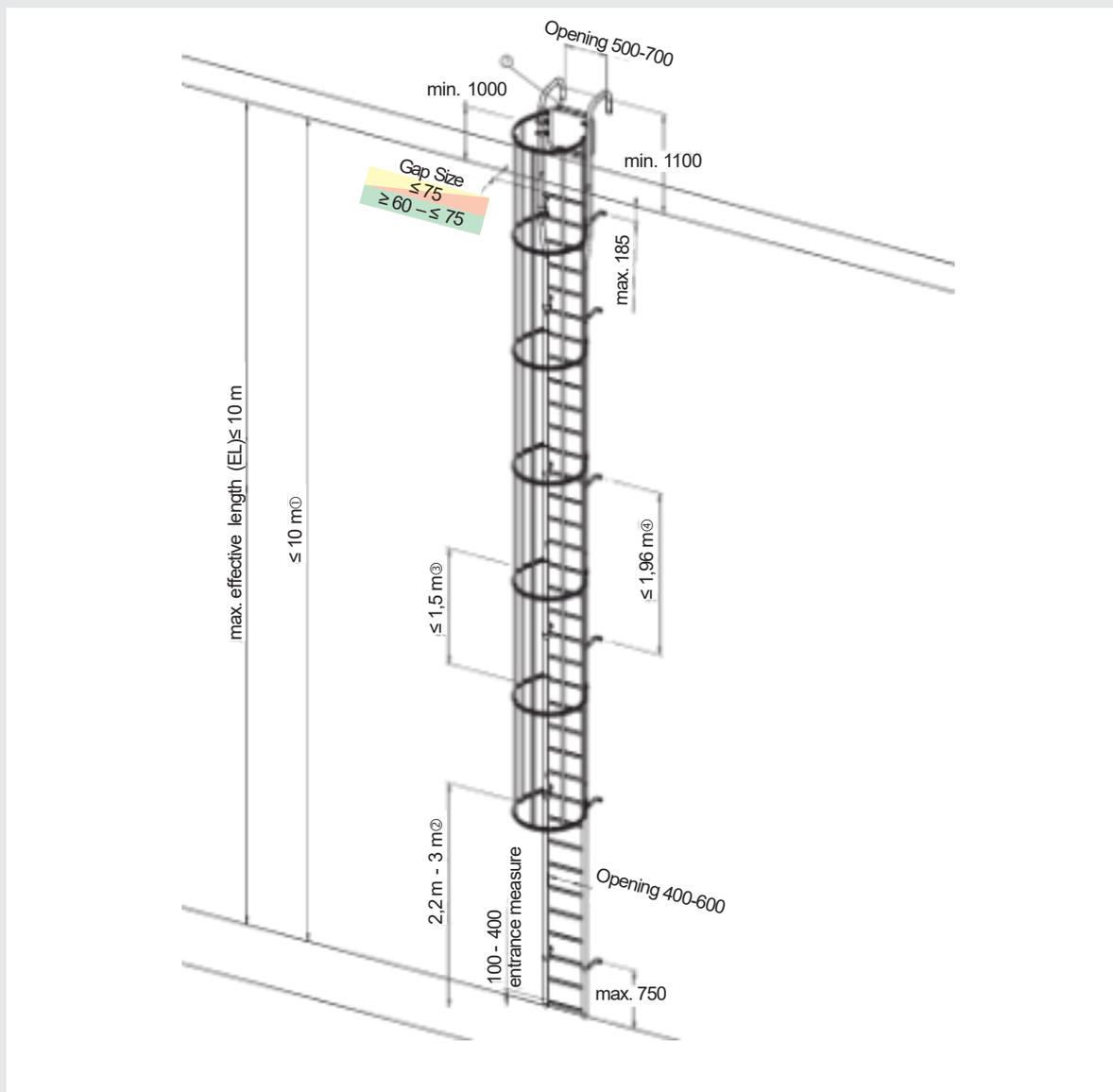
1. Choice of the correct standard:

2. Dimensions of the ladder construction:

Please note that for these exemplary ladders the different dimensionings of each standard are marked with the corresponding colour of the standard..

DIN 18799	DIN 14094	EN ISO 14122
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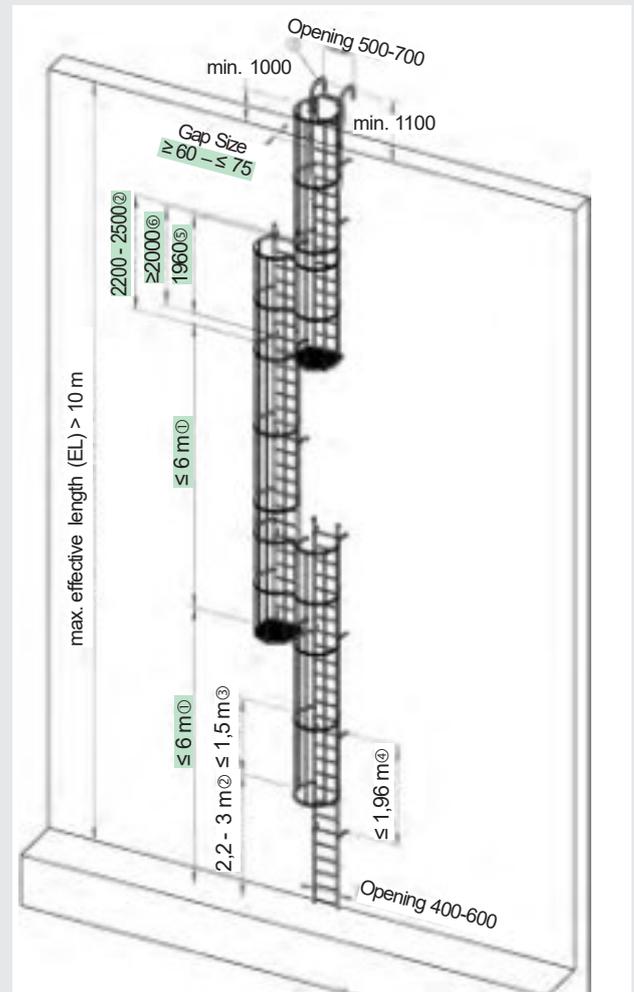
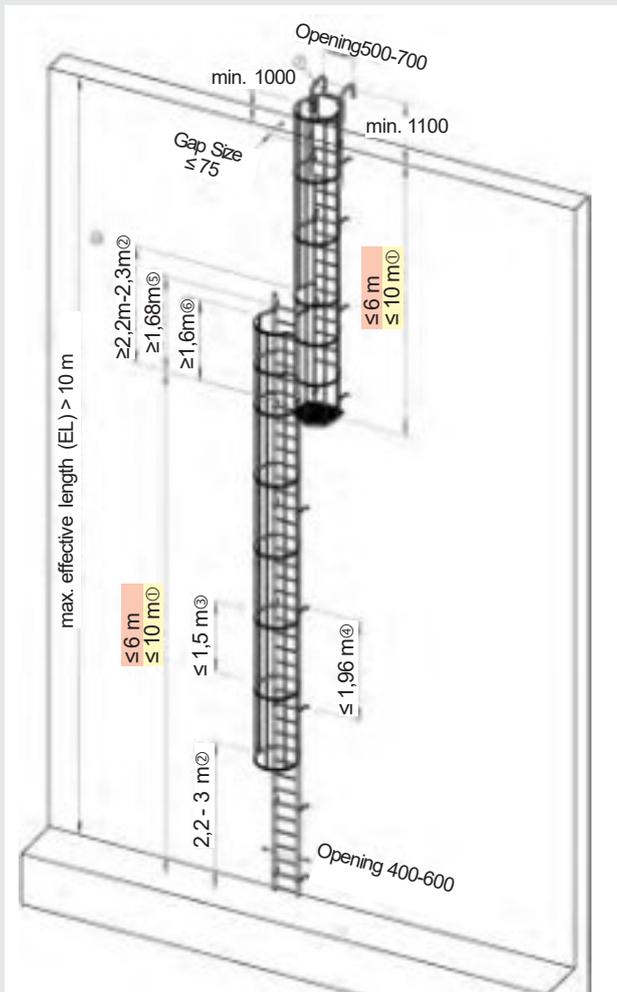
a) Single section ladder according to DIN 18799 ; DIN 14094 ; EN ISO 14122



Planning aid for fixed ladders in acc. with standards

b) Exemplary multiple section according to
DIN 18799 ; DIN 14094

c) Exemplary multiple section according to
EN ISO 14122



- Key:
- ① Max. height of the first and following sections
 - ② Distance to the beginning of the safety cage
 - ③ Distance safety cage
 - ④ Distance wall mounts
 - ⑤ Overlap ladder over platform
 - ⑥ Overlap safety cage over platform
 - ⑦ Self-closing barrier with hand- and knee rail is required according to DIN 18 79 and DIN EN ISO 14 122-4
 - ⑧ According to DIN 18 799, DIN 14 094 and DIN EN ISO 14 122-4 the top rung must be top adjusted to the construction edge.



In general for all dimensions the information in the included instruction for assembly and use has to be observed.

3. Composition of the required parts:
 Other part lists for ladders according to DIN 14094, EN ISO 14122 and DIN 18799, which you do not find in this catalogue can be requested at hallo@haca.com.
 The brackets needed for fixing the ladder depend on the condition of the building.
 They can be found see page A.38 – A.43

TWO STILE LADDERS

Basic ladders – rail Ø 48 mm

Coloured ladders available on enquiry

Material

8 Steel/hot-dip galv. 8 Stainless steel 8 Aluminium 8 Fibreglass on enquiry

Typical features

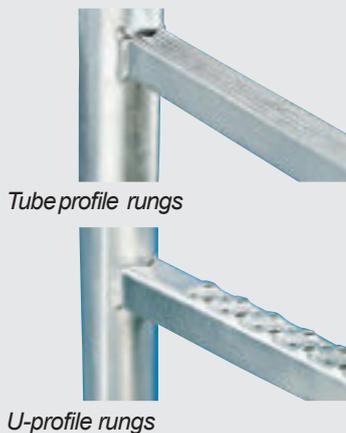
- »» Wide ladder type
- »» Rail Ø 48 mm

Benefits

- »» Standardised system
- »» Simple assembly
- »» Comfortable to use

Application

- »» General use
- »» Emergency ladder
- »» Suitable for shafts
(Exception: ladders made of aluminium)



Design

Steel, hot-dip galvanised in acc. with DIN EN ISO 1461, V4A stainless steel or anodised aluminium.

Rails made of round tubular steel.

Rungs made of square tubular steel profile with slip-resistant grooves or U-profile with double row of extremely slip-resistant, upwards-extruded hole pattern (apart from aluminium ladders).

Rails/rung joins connected using gas shielded arc welding.

Accessories and special equipment

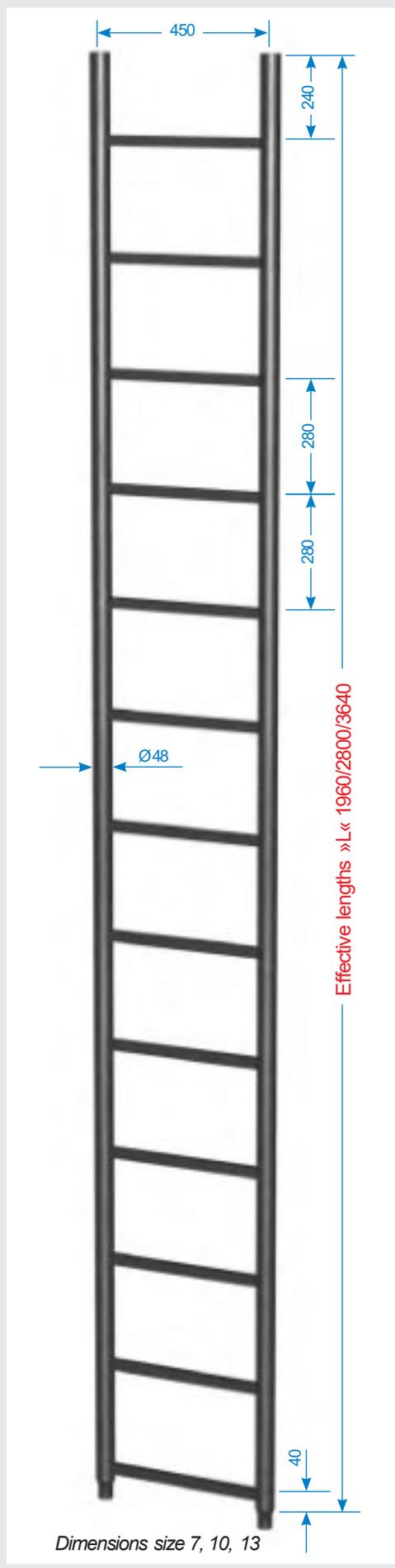
and fixing dowels: see Accessories.

Abmessungen

Rung distance	280 mm
Outer width of ladder (without fall protection)	500 mm
Clearwidth	402 mm
Rail distance	450 mm
Rails	Ø 48 mm

Longer ladders (e.g. to bridge wall openings) are available on enquiry. If you wish to compile the length of your ladder yourself please consider the information page »Areas of use and requirements placed on fixed ladders« and the application examples we provide there.

DIN 14094-1 · EN ISO 14122-4 · DIN EN 14 396
DIN 18799-1: 2019 · Workplaces Ordinance (ArbStättV)



Basic ladders

Model 5290 with tubular profile rungs 25 x 25 mm

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	12,7	5290 0000 07
10	2,80	2,84	16,7	5290 0000 10
13	3,64	3,68	22,7	5290 0000 13

Model 5294 with U-profile rungs 25 x 25 mm

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	11,5	5294 0000 07
10	2,80	2,84	15,9	5294 0000 10
13	3,64	3,68	20,4	5294 0000 13



Model 9290 with tubular steel rungs 25 x 25 mm

V4A stainless steel

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	12,3	9290 0000 07
10	2,80	2,84	17,7	9290 0000 10
13	3,64	3,68	22,4	9290 0000 13



Model 9294 with U-profile rungs 25 x 25 mm

V4A stainless steel

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,18	6,7	9294 0000 04
5	1,40	1,44	8,4	9294 0000 05
6	1,68	1,72	10,1	9294 0000 06
7	1,96	2,00	11,7	9294 0000 07
10	2,80	2,84	17,2	9294 0000 10
13	3,64	3,68	22,0	9294 0000 13

Model 6290 with tubular profile rungs 30 x 30 mm

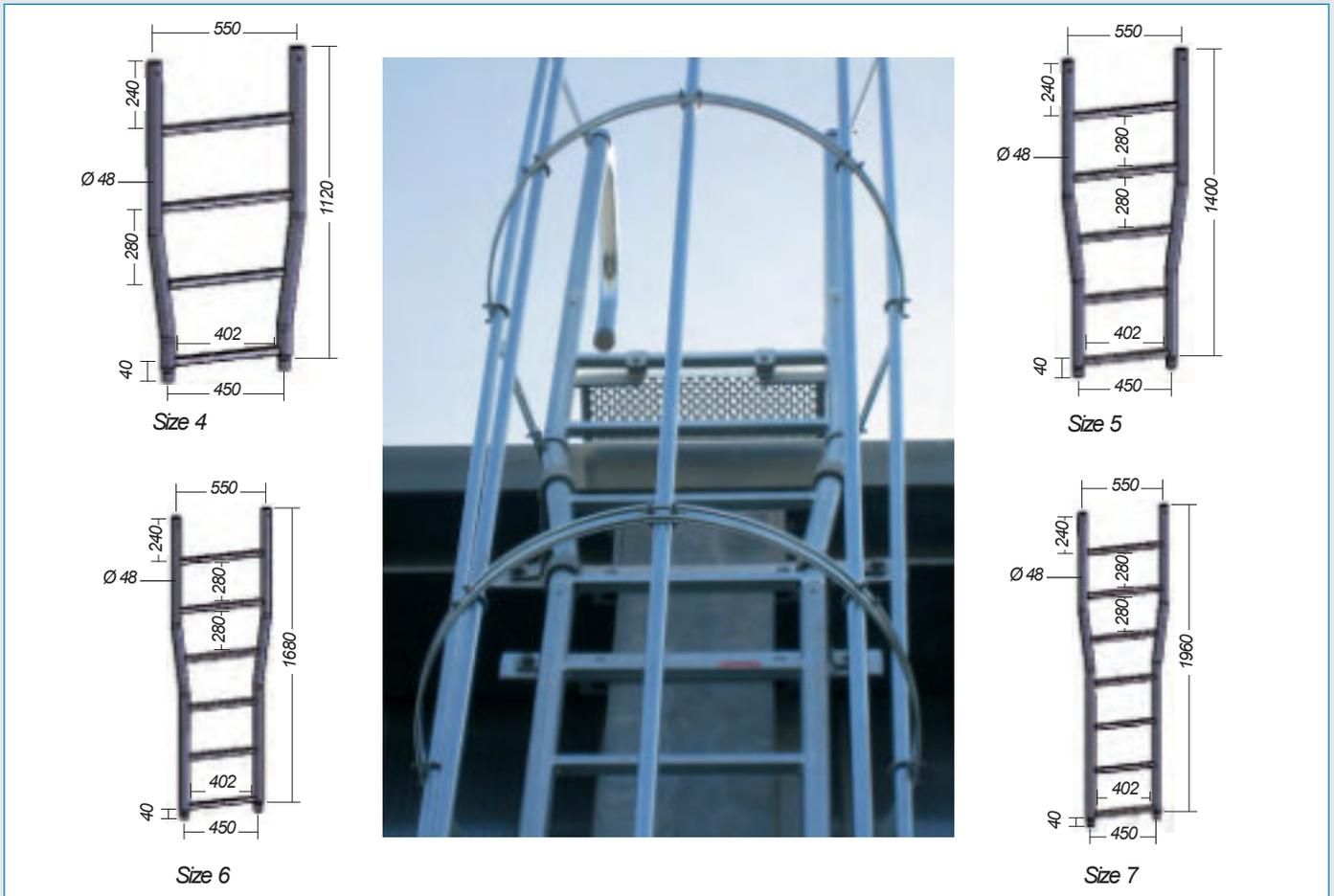
Anodised aluminium, E6 C-0 DIN 17 611

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	4,2	6290 0000 07
10	2,80	2,84	5,9	6290 0000 10
13	3,64	3,68	8,3	6290 0000 13

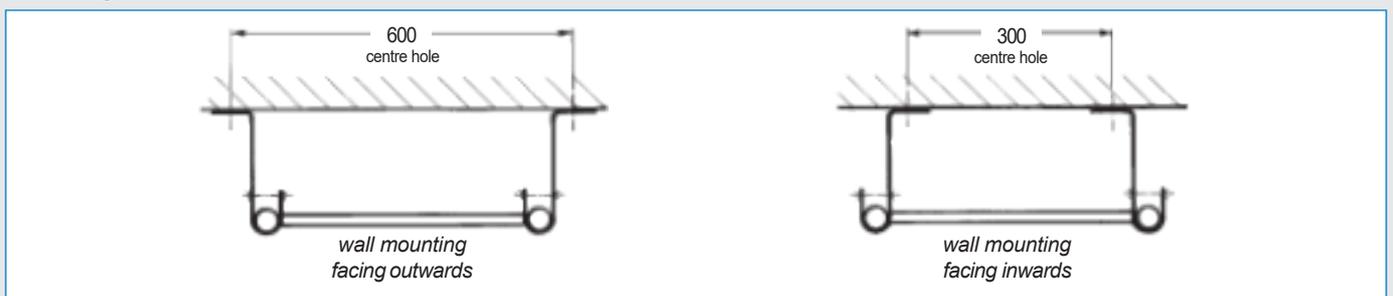
TWO STILE LADDERS Adapters – stile \varnothing 48 mm



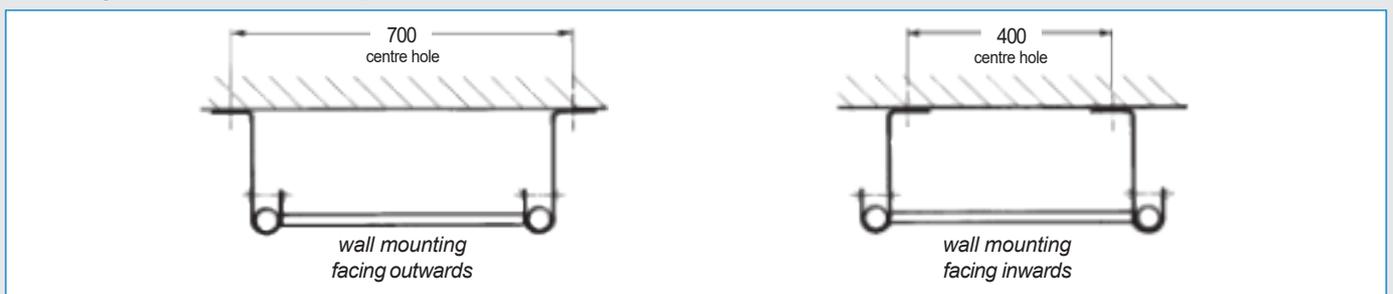
The clear width at the exit of the ladder has to be at least 500mm according to DIN 18 799 and DIN EN ISO 14 122. The adapters assure this. The standard safety cage adapts to this width.



Mounting dimensions at the bottom of the ladder



Mounting dimensions at the top of the ladder



DIN 14094-1 · EN ISO 14122-4 · DIN 18799-1: 2019 · Workplace Ordinance (ArbStättV)

Adapters

Type 5290.05 with rungs made of tubular profile 25 x 25 mm (for basicladder 5290)

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,16	7,1	5290 0500 04
5	1,40	1,44	8,8	5290 0500 05
6	1,68	1,72	10,5	5290 0500 06
7	1,96	2,00	12,2	5290 0500 07
10	2,80	2,84	17,0	5290 0500 10
13	3,64	3,68	21,8	5290 0500 13

Type 5294.05 with U-profile rungs 25 x 25 mm (for basicladder 5294)

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,16	7,0	5294 0500 04
5	1,40	1,44	8,6	5294 0500 05
6	1,68	1,72	10,3	5294 0500 06
7	1,96	2,00	11,9	5294 0500 07
10	2,80	2,84	16,6	5294 0500 10
13	3,64	3,68	21,2	5294 0500 13



Type 9290.05 with tubular steel rungs 25 x 25 mm (for basicladder 9290)

V4A stainless steel

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,16	7,2	9290 0500 04
5	1,40	1,44	8,9	9290 0500 05
6	1,68	1,72	10,5	9290 0500 06
7	1,96	2,00	12,3	9290 0500 07



Type 9294.05 with U-profile rungs 25 x 25 mm (for basicladder 9294) V4A stainless steel

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,16	7,1	9294 0500 04
5	1,40	1,44	8,7	9294 0500 05
6	1,68	1,72	10,3	9294 0500 06
7	1,96	2,00	12,1	9294 0500 07

Type 6290.05 with tubular profile rungs 30 x 30 mm (for basicladder 6290)

Anodised aluminium, E6 C-0 DIN 17 611

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,16	2,5	6290 0500 04
5	1,40	1,44	3,1	6290 0500 05
6	1,68	1,72	3,7	6290 0500 06
7	1,96	2,00	4,3	6290 0500 07

TWO STILE LADDERS Ladders with safety cage

Coloured ladders available on enquiry

Material

- Steel/hot-dip galv.
- Stainless steel
- Aluminium
- Fibreglass on enquiry

Typical features

- »» Wide ladder type
- »» Rail Ø 48 mm

Application

- »» General use
- »» Emergency ladders

Benefits

- »» Standardised system
- »» Simple assembly
- »» Comfortable to use



Model 5291 with platforms

Design

Steel, hot-dip galvanised to DIN EN ISO 1461, V4A stainless steel or anodised aluminium.

Stiles made of round tubular steel, rungs made of square tubular steel profile with slip resistant grooves or U-profile with double row of extremely slip-resistant, upwards-extruded hole pattern (apart from aluminium ladders). Rails/rung joints connected using gas shielded arc welding.

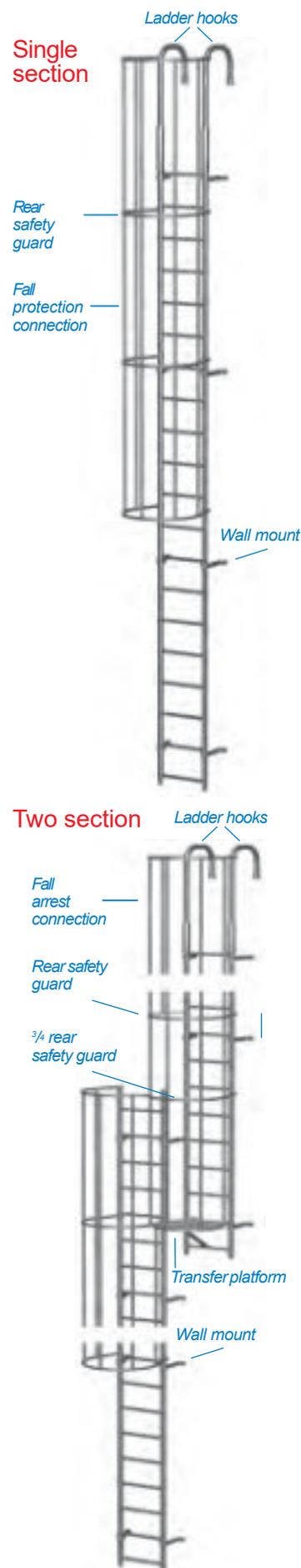
Safety cage with 5-fold fall protection connection made of tube, Ø 25 mm and fall protection frames made of special profile 50 x 2 mm.

Scope of delivery

This contains all parts required for construction according to regulations. Products are delivered disassembled.

Special equipment

For alternatives to series designs, special equipment and fixing dowels: see Accessories.



Single section, fixed ladders may have a max. drop of 10 m. Ladders must be made in more than one piece where climbing heights are greater. If different designs are necessary these must be agreed with the authorities responsible at the planning stage. With ladders with several sections the transfer platforms are designed to be arranged centrally. If the arrangement differs the configuration must be recalculated.

DIN 14094-1 · EN ISO 14122-4
DIN 18799-1: 2019 · Workplaces Ordinance (ArbStättV)

Parts list Ladders with safety cage Ladders according to DIN 14094

Single section up to 10 m Steel, hot-dip galvanised

Climbing height from to m	Ladder combination Model 5290/5294			Adapter Model 5290.05/ 5294.05					Ladder hook Model 0529.1450	Wall mount Model 0529.06.10	Rear safety-guard Model 0529.0105	Safety cage connection Model 0529.02	Transit platform Model 0529.2003.02	With tubular profile rungs	With U-profile rungs
	7	10	13	4	5	6	7	10	Units	Pairs	Units	m	Units	Order No.	Order No.
1,80 - 2,08	-	-	-	-	-	-	1	-	2	2	3	1,00	-	5290 9800 07	5294 9800 07
2,64 - 2,92	-	-	-	-	-	-	-	1	2	3	3	1,50	-	5290 9800 10	5294 9800 10
2,92 - 3,20	1	-	-	1	-	-	-	-	2	3	3	1,50	-	5290 9800 11	5294 9800 11
3,20 - 3,48	1	-	-	-	1	-	-	-	2	3	3	2,00	-	5290 9800 12	5294 9800 12
3,48 - 3,76	1	-	-	-	-	1	-	-	2	3	3	2,00	-	5290 9800 13	5294 9800 13
3,76 - 4,04	1	-	-	-	-	-	1	-	2	3	3	2,50	-	5290 9800 14	5294 9800 14
4,04 - 4,32	-	1	-	-	1	-	-	-	2	3	3	3,00	-	5290 9800 15	5294 9800 15
4,32 - 4,60	-	1	-	-	-	1	-	-	2	3	3	3,00	-	5290 9800 16	5294 9800 16
4,60 - 4,88	-	1	-	-	-	-	1	-	2	4	3	3,50	-	5290 9800 17	5294 9800 17
4,88 - 5,16	-	-	1	-	1	-	-	-	2	4	4	3,50	-	5290 9800 18	5294 9800 18
5,16 - 5,44	-	-	1	-	-	1	-	-	2	4	4	4,00	-	5290 9800 19	5294 9800 19
5,44 - 5,72	-	-	1	-	-	-	1	-	2	4	4	4,00	-	5290 9800 20	5294 9800 20
5,72 - 6,00	2	-	-	-	-	-	1	-	2	4	4	4,50	-	5290 9800 21	5294 9800 21
6,00 - 6,28	1	1	-	-	1	-	-	-	2	4	4	4,50	-	5290 9800 22	5294 9800 22
6,28 - 6,56	1	1	-	-	-	1	-	-	2	4	5	5,00	-	5290 9800 23	5294 9800 23
6,56 - 6,84	1	1	-	-	-	-	1	-	2	5	5	5,50	-	5290 9800 24	5294 9800 24
6,84 - 7,12	1	-	1	-	1	-	-	-	2	5	5	5,50	-	5290 9800 25	5294 9800 25
7,12 - 7,40	1	-	1	-	-	1	-	-	2	5	5	6,00	-	5290 9800 26	5294 9800 26
7,40 - 7,68	1	-	1	-	-	-	1	-	2	5	5	6,00	-	5290 9800 27	5294 9800 27
7,68 - 7,96	-	1	1	-	1	-	-	-	2	5	6	6,50	-	5290 9800 28	5294 9800 28
7,96 - 8,24	-	1	1	-	-	1	-	-	2	5	6	6,50	-	5290 9800 29	5294 9800 29
8,24 - 8,52	-	1	1	-	-	-	1	-	2	5	6	7,00	-	5290 9800 30	5294 9800 30
8,52 - 8,80	-	-	2	-	1	-	-	-	2	6	6	7,00	-	5290 9800 31	5294 9800 31
8,80 - 9,08	-	-	2	-	-	1	-	-	2	6	6	7,50	-	5290 9800 32	5294 9800 32
9,08 - 9,36	-	-	2	-	-	-	1	-	2	6	6	8,00	-	5290 9800 33	5294 9800 33
9,36 - 9,64	1	2	-	-	-	-	1	-	2	6	7	8,00	-	5290 9800 34	5294 9800 34
9,64 - 9,92	1	1	1	-	1	-	-	-	2	6	7	8,50	-	5290 9800 35	5294 9800 35

Two section – according to DIN 14094 all 6m climbing height a transfer platform is required

10,00 - 10,20	2	1	1	-	-	-	1	-	2	9	7	11,00	1	5290 9800 36	5294 9800 36
10,20 - 10,48	4	1	-	-	-	-	1	-	2	9	7	11,00	1	5290 9800 37	5294 9800 37
10,48 - 10,76	2	-	2	-	-	-	1	-	2	9	7	11,50	1	5290 9800 38	5294 9800 38
10,76 - 11,04	1	1	2	-	1	-	-	-	2	9	7	12,00	1	5290 9800 39	5294 9800 39
11,04 - 11,32	1	1	2	-	1	-	-	-	2	9	7	12,00	1	5290 9800 40	5294 9800 40
11,32 - 11,60	1	1	2	-	-	1	-	-	2	9	8	12,00	1	5290 9800 41	5294 9800 41
11,60 - 11,88	2	3	-	-	-	1	-	-	2	9	9	12,50	1	5290 9800 42	5294 9800 42

Triple section – according to DIN 14094 all 6m climbing height a transfer platform is required

11,88 - 12,16	-	4	1	-	-	1	-	-	2	11	8	15,00	2	5290 9800 43	5294 9800 43
12,16 - 12,44	-	4	1	-	-	-	1	-	2	12	8	15,50	2	5290 9800 44	5294 9800 44
12,44 - 12,72	3	2	1	-	-	-	1	-	2	12	8	15,50	2	5290 9800 45	5294 9800 45
12,72 - 13,00	5	2	-	-	-	-	1	-	2	13	8	15,50	2	5290 9800 46	5294 9800 46
13,00 - 13,28	5	1	1	-	1	-	-	-	2	13	9	16,00	2	5290 9800 47	5294 9800 47
13,28 - 13,56	2	2	2	-	1	-	-	-	2	13	10	16,50	2	5290 9800 48	5294 9800 48
13,56 - 13,84	-	1	4	-	1	-	-	-	2	13	10	17,00	2	5290 9800 49	5294 9800 49
13,84 - 14,12	-	1	4	-	-	1	-	-	2	13	10	17,00	2	5290 9800 50	5294 9800 50
14,12 - 14,40	-	1	4	-	-	1	-	-	2	13	10	17,00	2	5290 9800 51	5294 9800 51
14,40 - 14,68	-	1	4	-	-	-	1	-	2	13	10	17,00	2	5290 9800 52	5294 9800 52
14,68 - 14,96	-	1	4	-	-	-	-	1	2	13	10	17,50	2	5290 9800 53	5294 9800 53
14,96 - 15,24	2	1	3	-	-	-	1	-	2	14	10	18,00	2	5290 9800 54	5294 9800 54
15,24 - 15,52	3	3	1	-	-	-	1	-	2	14	11	18,50	2	5290 9800 55	5294 9800 55
15,52 - 15,80	5	3	-	-	-	-	1	-	2	14	11	18,50	2	5290 9800 56	5294 9800 56
15,80 - 16,08	3	2	2	-	-	-	1	-	2	14	11	19,00	2	5290 9800 57	5294 9800 57
16,08 - 16,36	6	-	2	-	-	-	1	-	2	14	11	19,50	2	5290 9800 58	5294 9800 58
16,36 - 16,64	5	1	2	-	1	-	-	-	2	14	11	20,00	2	5290 9800 59	5294 9800 59
16,64 - 17,20	1	4	2	-	1	-	-	-	2	14	11	20,00	2	5290 9800 61	5294 9800 61
17,20 - 17,48	1	4	2	-	-	1	-	-	2	14	12	20,00	2	5290 9800 62	5294 9800 62

Assemblies in accordance with [DIN EN ISO 14122](#) and [DIN 18799: 2019](#) available on request.

Part of the scope of delivery are also:

1 identification plate

type 0174.10

1 platform

type 0529.23.10



Parts list Ladders with safety cage Ladders according to **DIN 14094**

Single section up to 10 m

V4A stainless steel

Climbing height from to m	Ladder combination Model 9290/9294			Adapter Model 9290.05/ 9294.05				Ladder hook Model 0929.1450	Wall mount Model 0929.06.10	Rear safety-guard Model 0929.0105	Safety cage connection Model 0929.02	Transfer platform Model 0929.2003.02	With tubular profile rungs	With U-profile rungs
	7	10	13	4	5	6	7	Units	Pairs	Units	m	Units	Order No.	Order No.
1,80 - 2,08	-	-	-	-	-	-	1	2	2	3	1,00	-	9290 9800 07	9294 9800 07
2,92 - 3,20	1	-	-	1	-	-	-	2	3	3	1,50	-	9290 9800 11	9294 9800 11
3,20 - 3,48	1	-	-	-	1	-	-	2	3	3	2,00	-	9290 9800 12	9294 9800 12
3,48 - 3,76	1	-	-	-	-	1	-	2	3	3	2,00	-	9290 9800 13	9294 9800 13
3,76 - 4,04	-	1	-	-	-	-	1	2	3	3	2,50	-	9290 9800 14	9294 9800 14
4,04 - 4,32	-	1	-	-	1	-	-	2	3	3	3,00	-	9290 9800 15	9294 9800 15
4,32 - 4,60	-	1	-	-	-	1	-	2	3	3	3,00	-	9290 9800 16	9294 9800 16
4,60 - 4,88	1	-	-	-	-	-	1	2	4	3	3,50	-	9290 9800 17	9294 9800 17
4,88 - 5,16	-	-	1	-	1	-	-	2	4	4	3,50	-	9290 9800 18	9294 9800 18
5,16 - 5,44	-	-	1	-	-	1	-	2	4	4	4,00	-	9290 9800 19	9294 9800 19
5,44 - 5,72	-	-	1	-	-	-	1	2	4	4	4,00	-	9290 9800 20	9294 9800 20
5,72 - 6,00	2	-	-	-	-	-	1	2	4	4	4,50	-	9290 9800 21	9294 9800 21
6,00 - 6,28	1	1	-	-	1	-	-	2	4	4	4,50	-	9290 9800 22	9294 9800 22
6,28 - 6,56	1	1	-	-	-	1	-	2	4	5	5,00	-	9290 9800 23	9294 9800 23
6,56 - 6,84	1	1	-	-	-	-	1	2	5	5	5,50	-	9290 9800 24	9294 9800 24
6,84 - 7,12	1	-	1	-	1	-	-	2	5	5	5,50	-	9290 9800 25	9294 9800 25
7,12 - 7,40	1	-	1	-	-	1	-	2	5	5	6,00	-	9290 9800 26	9294 9800 26
7,40 - 7,68	1	-	1	-	-	-	1	2	5	5	6,00	-	9290 9800 27	9294 9800 27
7,68 - 7,96	-	1	1	-	1	-	-	2	5	6	6,50	-	9290 9800 28	9294 9800 28
7,96 - 8,24	-	1	1	-	-	1	-	2	5	6	6,50	-	9290 9800 29	9294 9800 29
8,24 - 8,52	-	1	1	-	-	-	1	2	5	6	7,00	-	9290 9800 30	9294 9800 30
8,52 - 8,80	-	-	2	-	-	1	-	2	6	6	7,00	-	9290 9800 31	9294 9800 31
8,80 - 9,08	-	-	2	-	-	1	-	2	6	6	7,50	-	9290 9800 32	9294 9800 32
9,08 - 9,36	-	-	2	-	-	-	1	2	6	6	8,00	-	9290 9800 33	9294 9800 33
9,36 - 9,64	1	2	-	-	-	-	1	2	6	7	8,00	-	9290 9800 34	9294 9800 34
9,64 - 9,92	1	1	1	-	1	-	-	2	6	7	8,50	-	9290 9800 35	9294 9800 35

Two section – according to DIN 14094 all 6m climbing height a transfer platform is required

10,00 - 10,20	2	1	1	-	-	-	-	2	9	7	11,00	1	9290 9800 36	9294 9800 36
10,20 - 10,48	4	1	-	-	-	-	-	2	9	7	11,00	1	9290 9800 37	9294 9800 37
10,48 - 10,76	2	-	2	-	-	-	-	2	9	7	11,50	1	9290 9800 38	9294 9800 38
10,76 - 11,04	1	1	2	-	1	-	-	2	9	7	12,00	1	9290 9800 39	9294 9800 39
11,04 - 11,32	1	1	2	-	1	-	-	2	9	7	12,00	1	9290 9800 40	9294 9800 40
11,32 - 11,60	1	1	2	-	-	1	-	2	9	8	12,00	1	9290 9800 41	9294 9800 41
11,60 - 11,88	2	3	-	-	-	1	-	2	9	9	12,50	1	9290 9800 42	9294 9800 42

Triple section – according to DIN 14094 all 6m climbing height a transfer platform is required

11,88 - 12,16	-	4	1	-	-	1	-	2	11	8	15,00	2	9290 9800 43	9294 9800 43
12,16 - 12,44	-	4	1	-	-	-	-	2	12	8	15,50	2	9290 9800 44	9294 9800 44
12,44 - 12,72	3	2	1	-	-	-	-	2	12	8	15,50	2	9290 9800 45	9294 9800 45
12,72 - 13,00	5	2	-	-	-	-	-	2	13	8	15,50	2	9290 9800 46	9294 9800 46
13,00 - 13,28	5	1	1	-	1	-	-	2	13	9	16,00	2	9290 9800 47	9294 9800 47
13,28 - 13,56	2	2	2	-	1	-	-	2	13	10	16,50	2	9290 9800 48	9294 9800 48
13,56 - 13,84	-	1	4	-	1	-	-	2	13	10	17,00	2	9290 9800 49	9294 9800 49
13,84 - 14,12	-	1	4	-	-	1	-	2	13	10	17,00	2	9290 9800 50	9294 9800 50
14,12 - 14,40	-	1	4	-	-	1	-	2	13	10	17,00	2	9290 9800 51	9294 9800 51
14,40 - 14,68	-	1	4	-	-	1	-	2	13	10	17,00	2	9290 9800 52	9294 9800 52
14,68 - 14,96	-	1	4	-	-	-	1	2	13	10	17,50	2	9290 9800 53	9294 9800 53
14,96 - 15,24	2	1	3	-	-	-	1	2	14	10	18,00	2	9290 9800 54	9294 9800 54
15,24 - 15,52	3	3	1	-	-	-	1	2	14	11	18,50	2	9290 9800 55	9294 9800 55
15,52 - 15,80	5	3	-	-	-	-	1	2	14	11	18,50	2	9290 9800 56	9294 9800 56
15,80 - 16,08	3	2	2	-	-	-	1	2	14	11	19,00	2	9290 9800 57	9294 9800 57
16,08 - 16,36	6	-	2	-	-	-	1	2	14	11	19,50	2	9290 9800 58	9294 9800 58
16,36 - 16,64	5	1	2	-	1	-	-	2	14	11	20,00	2	9290 9800 59	9294 9800 59
16,92 - 17,20	1	4	2	-	1	-	-	2	14	11	20,00	2	9290 9800 61	9294 9800 61
17,20 - 17,48	1	4	2	-	-	1	-	2	14	12	20,00	2	9290 9800 62	9294 9800 62

Assemblies in accordance with **DIN EN ISO 14122** and **DIN 18799: 2019** available on request.

Part of the scope of delivery are also:

1 identification plate

type **0174.10**

1 platform

type **0929.23.10**

Parts list Ladders with safety cage Ladders according to **DIN 14094**

Single section up to 10 m											Anodised Aluminium			
Climbing height from to m	Ladder combination Model 6290			Adapter Model 6290.05				Ladder hook Model 0629.1450	Wall mount Model 0629.06.10	Rear safety-guard Model 0629.0105	Safety cage connection Model 0629.02	Rückenschutz- verstärkung Model 0629.03	Transit platform Model 0629.2003.02	With tubular profile rungs Order No.
	7	10	13	4	5	6	7	Units	Pairs	Units	m	Units	Units	
1,80 - 2,08	-	-	-	-	-	-	1	2	2	3	1,00	1	-	6290 9800 07
2,92 - 3,20	1	-	-	1	-	-	-	2	3	3	1,50	1	-	6290 9800 11
3,20 - 3,48	1	-	-	-	1	-	-	2	3	3	2,00	1	-	6290 9800 12
3,48 - 3,76	1	-	-	-	-	1	-	2	3	3	2,00	1	-	6290 9800 13
3,76 - 4,04	1	-	-	-	-	-	1	2	3	3	2,50	1	-	6290 9800 14
4,04 - 4,32	-	1	-	-	1	-	-	2	3	3	3,00	1	-	6290 9800 15
4,32 - 4,60	-	1	-	-	-	1	-	2	3	3	3,00	1	-	6290 9800 16
4,60 - 4,88	-	1	-	-	-	-	1	2	4	3	3,50	1	-	6290 9800 17
4,88 - 5,16	-	-	1	-	1	-	-	2	4	4	3,50	1	-	6290 9800 18
5,16 - 5,44	-	-	1	-	-	1	-	2	4	4	4,00	1	-	6290 9800 19
5,44 - 5,72	-	-	1	-	-	-	1	2	4	4	4,00	1	-	6290 9800 20
5,72 - 6,00	2	-	-	-	-	-	1	2	4	4	4,50	1	-	6290 9800 21
6,00 - 6,28	1	1	-	-	1	-	-	2	4	4	4,50	1	-	6290 9800 22
6,28 - 6,56	1	1	-	-	-	1	-	2	4	5	5,00	1	-	6290 9800 23
6,56 - 6,84	1	1	-	-	-	-	1	2	5	5	5,50	1	-	6290 9800 24
6,84 - 7,12	1	-	1	-	1	-	-	2	5	5	5,50	1	-	6290 9800 25
7,12 - 7,40	1	-	1	-	-	1	-	2	5	5	6,00	1	-	6290 9800 26
7,40 - 7,68	1	-	1	-	-	-	1	2	5	5	6,00	1	-	6290 9800 27
7,68 - 7,96	-	1	1	-	1	-	-	2	5	6	6,50	1	-	6290 9800 28
7,96 - 8,24	-	1	1	-	-	1	-	2	5	6	6,50	1	-	6290 9800 29
8,24 - 8,52	-	1	1	-	-	-	1	2	5	6	7,00	1	-	6290 9800 30
8,52 - 8,80	-	-	2	-	1	-	-	2	6	6	7,00	1	-	6290 9800 31
8,80 - 9,08	-	-	2	-	-	1	-	2	6	6	7,50	1	-	6290 9800 32
9,08 - 9,36	-	-	2	-	-	-	1	2	6	6	8,00	1	-	6290 9800 33
9,36 - 9,64	1	2	-	-	-	-	1	2	6	7	8,00	1	-	6290 9800 34
9,64 - 9,92	1	1	1	-	1	-	-	2	6	7	8,50	1	-	6290 9800 35

Two section – according to DIN 14094 all 6m climbing height a transfer platform is required

10,00 - 10,20	2	2	1	-	-	-	1	2	9	7	11,00	2	1	6290 9800 36
10,20 - 10,48	4	1	-	-	-	-	1	2	9	7	11,00	2	1	6290 9800 37
10,48 - 10,76	2	-	2	-	-	-	1	2	9	7	11,50	2	1	6290 9800 38
10,76 - 11,04	1	1	2	-	1	-	-	2	9	7	12,00	2	1	6290 9800 39
11,04 - 11,32	1	1	2	-	1	-	-	2	9	7	12,00	2	1	6290 9800 40
11,32 - 11,60	1	1	2	-	-	1	-	2	9	8	12,00	2	1	6290 9800 41
11,60 - 11,88	2	3	-	-	-	1	-	2	9	9	12,50	2	1	6290 9800 42

Triple section – according to DIN 14094 all 6m climbing height a transfer platform is required

11,88 - 12,16	-	4	1	-	-	1	-	2	11	8	15,00	3	2	6290 9800 43
12,16 - 12,44	-	4	1	-	-	-	1	2	12	8	15,50	3	2	6290 9800 44
12,44 - 12,72	3	2	1	-	-	-	1	2	12	8	15,50	3	2	6290 9800 45
12,72 - 13,00	5	2	-	-	-	-	1	2	13	8	15,50	3	2	6290 9800 46
13,00 - 13,28	5	1	1	-	1	-	-	2	13	9	16,00	3	2	6290 9800 47
13,28 - 13,56	2	2	2	-	1	-	-	2	13	10	16,50	3	2	6290 9800 48
13,56 - 13,84	-	1	4	-	1	-	-	2	13	10	17,00	3	2	6290 9800 49
13,84 - 14,12	-	1	4	-	-	1	-	2	13	10	17,00	3	2	6290 9800 50
14,12 - 14,40	-	1	4	-	-	1	-	2	13	10	17,00	3	2	6290 9800 51
14,40 - 14,68	-	1	4	-	-	1	-	2	13	10	17,00	3	2	6290 9800 52
14,68 - 14,96	-	1	4	-	-	-	1	2	13	10	17,50	3	2	6290 9800 53
14,96 - 15,24	2	1	3	-	-	-	1	2	14	10	18,00	3	2	6290 9800 54
15,24 - 15,52	3	3	1	-	-	-	1	2	14	11	18,50	3	2	6290 9800 55
15,52 - 15,80	5	3	-	-	-	-	1	2	14	11	18,50	3	2	6290 9800 56
15,80 - 16,08	3	2	2	-	-	-	1	2	14	11	19,00	3	2	6290 9800 57
16,08 - 16,36	6	-	2	-	-	-	1	2	14	11	19,50	3	2	6290 9800 58
16,36 - 16,64	5	1	2	-	1	-	-	2	14	11	20,00	3	2	6290 9800 59
16,92 - 17,20	1	4	2	-	1	-	-	2	14	11	20,00	3	2	6290 9800 61
17,20 - 17,48	1	4	2	-	-	1	-	2	14	12	20,00	3	2	6290 9800 62

Assemblies in accordance with **DIN EN ISO 14122** and **DIN 18799: 2019** available on request.

Part of the scope of delivery are also:

1 identification plate

type **0174.10**

1 platform

type **0529.23.10**

TWO STILE LADDERS

Ladders with fall protection

Coloured ladders available on enquiry

Material

Steel/hot-dip galv.
 Stainless steel
 Aluminium
 Fibreglass on enquiry

Typical features

- »» Wide ladder type
- »» Stile Ø 48 mm

Application

- »» General use

Benefits

- »» Standardised system
- »» Simple assembly
- »» Continuous fall arrest system



Model 5292 with adjustable wall mounts and platform

Design

Steel, hot-dip galvanised in accordance with DIN EN ISO 1461, V4A stainless steel or anodised aluminium..

Stiles made of round tubular steel.

Rungs made of square tubular steel profile with slip-resistant grooves or U-profile with double row of extremely slip-resistant, upwards-extruded hole pattern.

Rail/rung joints connected using gas shielded arc welding.

Fall arrest rail made of profile \sqsubset (top hat section).

Scope of delivery

This contains all parts required for construction according to regulations. Products are delivered disassembled.

Special equipment

For alternatives to series designs, special equipment and fixing dowels: see Accessories.

For correct **fall arresters** and for **safety harnesses** see »Personal Protective Equipment«.



By contrast with ladders with safety cage, ladders with fall arrest equipment are not subject to any height restrictions and provide real protection against fall from heights.

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Parts list Ladders with fall protection Ladders according to **DIN 18799:2019**

Fall protection is required from 5 m **Steel, hot-dip galvanised**

Climbing height from to m	Ladder combination							Wall mount Model 0529.06.10 Pairs	Fall arrest rail length m	Fall arrest rail combination Model 0529.66.03					U-bolt Model 0529.85.40* Units	With tubular profile rungs	With U-profile rungs
	adapter Model 5290.05/5294.05				ladder segments Model 5290/5294					4	7	10	13	21		Order No.	Order No.
	4	5	6	7	7	10	13										
4,88 - 5,16	0	1	0	0	0	0	1	3	4,76	0	1	1	0	0	4	5290 9900 18	5294 9900 18
5,16 - 5,44	0	0	1	0	0	0	1	3	5,04	2	0	1	0	0	4	5290 9900 19	5294 9900 19
5,44 - 5,72	0	0	0	1	0	0	1	3	5,32	3	1	0	0	0	5	5290 9900 20	5294 9900 20
5,72 - 6,00	0	0	0	1	2	0	0	4	5,60	0	0	2	0	0	5	5290 9900 21	5294 9900 21
6,00 - 6,28	0	1	0	0	1	1	0	4	5,88	0	3	0	0	0	5	5290 9900 22	5294 9900 22
6,28 - 6,56	0	0	1	0	1	1	0	4	6,16	3	0	1	0	0	5	5290 9900 23	5294 9900 23
6,56 - 6,84	0	0	0	1	1	1	0	4	6,44	0	0	1	1	0	5	5290 9900 24	5294 9900 24
6,84 - 7,12	0	1	0	0	1	0	1	4	6,72	0	2	1	0	0	5	5290 9900 25	5294 9900 25
7,12 - 7,40	0	0	1	0	1	0	1	4	7,00	1	3	0	0	0	6	5290 9900 26	5294 9900 26
7,40 - 7,68	0	0	0	1	1	0	1	4	7,28	0	0	0	2	0	6	5290 9900 27	5294 9900 27
7,68 - 7,96	0	1	0	0	0	1	1	5	7,56	0	1	2	0	0	6	5290 9900 28	5294 9900 28
7,96 - 8,24	0	0	1	0	0	1	1	5	7,84	0	4	0	0	0	6	5290 9900 29	5294 9900 29
8,24 - 8,52	0	0	0	1	0	1	1	5	8,12	2	3	0	0	0	6	5290 9900 30	5294 9900 30
8,52 - 8,80	0	1	0	0	0	0	2	5	8,40	0	0	3	0	0	6	5290 9900 31	5294 9900 31
8,80 - 9,08	0	0	1	0	0	0	2	5	8,68	0	3	1	0	0	7	5290 9900 32	5294 9900 32
9,08 - 9,36	0	0	0	1	0	0	2	5	8,96	3	0	2	0	0	7	5290 9900 33	5294 9900 33
9,36 - 9,64	0	0	0	1	1	2	0	5	9,24	0	0	2	1	0	7	5290 9900 34	5294 9900 34
9,64 - 9,92	0	1	0	0	1	1	1	6	9,52	0	2	2	0	0	7	5290 9900 35	5294 9900 35
9,92 - 10,20	0	0	1	0	1	1	1	6	9,80	3	0	1	1	0	7	5290 9900 36	5294 9900 36
10,20 - 10,48	0	0	0	1	0	3	0	6	10,08	0	0	1	2	0	8	5290 9900 37	5294 9900 37
10,48 - 10,76	0	1	0	0	1	0	2	6	10,36	0	2	1	1	0	8	5290 9900 38	5294 9900 38
10,76 - 11,04	0	0	1	0	1	0	2	6	10,64	0	4	1	0	0	8	5290 9900 39	5294 9900 39
11,04 - 11,32	0	0	0	1	1	0	2	6	10,92	0	0	0	3	0	8	5290 9900 40	5294 9900 40
11,32 - 11,60	0	1	0	0	0	1	2	6	11,20	0	0	4	0	0	8	5290 9900 41	5294 9900 41
11,60 - 11,88	0	0	1	0	0	1	2	7	11,48	0	3	2	0	0	8	5290 9900 42	5294 9900 42
11,88 - 12,16	1	0	0	0	0	0	3	7	11,76	3	0	3	0	0	8	5290 9900 43	5294 9900 43
12,16 - 12,44	0	1	0	0	0	0	3	7	12,04	0	0	3	1	0	9	5290 9900 44	5294 9900 44
12,44 - 12,72	0	0	1	0	0	0	3	7	12,32	0	2	3	0	0	9	5290 9900 45	5294 9900 45
12,72 - 13,00	0	0	0	1	0	0	3	7	12,60	0	5	1	0	0	9	5290 9900 46	5294 9900 46
13,00 - 13,28	0	0	0	1	1	2	1	7	12,88	0	0	2	2	0	9	5290 9900 47	5294 9900 47
13,28 - 13,56	0	1	0	0	0	3	1	7	13,16	0	2	2	1	0	9	5290 9900 48	5294 9900 48
13,56 - 13,84	0	0	1	0	0	3	1	8	13,44	2	0	4	0	0	9	5290 9900 49	5294 9900 49
13,84 - 14,12	0	0	0	1	0	3	1	8	13,72	0	0	1	3	0	10	5290 9900 50	5294 9900 50
14,12 - 14,40	0	1	0	0	1	0	3	8	14,00	0	0	5	0	0	10	5290 9900 51	5294 9900 51
14,40 - 14,68	0	0	1	0	1	0	3	8	14,28	0	3	3	0	0	10	5290 9900 52	5294 9900 52
14,68 - 14,96	0	0	0	1	1	0	3	8	14,56	0	0	0	4	0	10	5290 9900 53	5294 9900 53
14,96 - 15,24	0	1	0	0	0	1	3	8	14,84	0	0	4	1	0	10	5290 9900 54	5294 9900 54
15,24 - 15,52	0	0	1	0	0	1	3	8	15,12	1	0	5	0	0	10	5290 9900 55	5294 9900 55
15,52 - 15,80	0	0	0	1	0	1	3	9	15,40	1	0	5	0	0	10	5290 9900 56	5294 9900 56
15,80 - 16,08	1	0	0	0	1	2	2	9	15,68	0	0	3	2	0	11	5290 9900 57	5294 9900 57
16,08 - 16,36	0	1	0	0	1	2	2	9	15,96	0	1	5	0	0	11	5290 9900 58	5294 9900 58
16,36 - 16,64	0	0	1	0	1	2	2	9	16,24	0	4	3	0	0	11	5290 9900 59	5294 9900 59
16,64 - 16,92	1	0	0	0	1	1	3	9	16,52	0	0	3	2	0	11	5290 9900 60	5294 9900 60
16,92 - 17,20	0	1	0	0	1	1	3	9	16,80	0	0	6	0	0	11	5290 9900 61	5294 9900 61
17,20 - 17,48	0	0	1	0	1	1	3	9	17,08	0	3	4	0	0	12	5290 9900 62	5294 9900 62
17,48 - 17,76	1	0	0	0	0	2	3	10	17,36	0	0	1	4	0	12	5290 9900 63	5294 9900 63
17,76 - 18,04	0	1	0	0	0	2	3	10	17,64	0	0	5	1	0	12	5290 9900 64	5294 9900 64
18,04 - 18,32	0	0	1	0	0	2	3	10	17,92	0	2	5	0	0	12	5290 9900 65	5294 9900 65
18,32 - 18,60	0	0	0	1	0	2	3	10	18,20	0	0	0	5	0	12	5290 9900 66	5294 9900 66
18,60 - 18,88	1	0	0	0	2	1	3	10	18,48	0	0	4	2	0	12	5290 9900 67	5294 9900 67
18,88 - 19,16	0	1	0	0	2	1	3	10	18,76	0	1	6	0	0	13	5290 9900 68	5294 9900 68
19,16 - 19,44	0	0	1	0	2	1	3	10	19,04	0	4	4	0	0	13	5290 9900 69	5294 9900 69
19,44 - 19,72	1	0	0	0	1	2	3	11	19,32	0	2	3	3	0	13	5290 9900 70	5294 9900 70
19,72 - 20,00	0	1	0	0	1	2	3	11	19,60	0	0	10	0	0	13	5290 9900 71	5294 9900 71

Number of rest platforms should be determined based on the user and the user categories A, B or C. See planning aid for fixed ladders.

*) U-bolt 0529.85.43 for U-profile rungs

The following articles are also included within the scope of delivery for the fall arrest system:

- | | | | |
|----------------------|----------------------------------|-------------------------|---------------------------|
| 1 pivoting entry aid | Typ 0529.67.02 | 2 ladder hooks each | Typ 0529.14.50 |
| 1 end stop each | Typ 0529.40.06/0529.40.07 | 1 set of base plates | Typ 0529.16.10 |
| 1 platform | Typ 0529.23.10 | 2 identification plates | Typ 0173, Typ 0175 |

Parts list Ladders with fall protection Ladders according to DIN 18799:2019



Fall protection required from 5 m **V4A stainless steel**

Climbing height from to m	Ladder combination							Wall mount Model 0929.06.10 Pairs	Fall arrest rail length m	Fall arrest rail combination Model 0929.66.03					U-bolt Model 0929.85.40* Units	With tubular profile rungs	With U-profile rungs
	adapter Model 9290.05/9294.05				ladder segments Model 9290/9294					4	7	10	13	21		Order No.	Order No.
	4	5	6	7	7	10	13										
4,88 - 5,16	0	1	0	0	0	0	1	3	4,76	0	1	1	0	0	4	9290 9900 18	9294 9900 18
5,16 - 5,44	0	0	1	0	0	0	1	3	5,04	2	0	1	0	0	4	9290 9900 19	9294 9900 19
5,44 - 5,72	0	0	0	1	0	0	1	3	5,32	3	1	0	0	0	5	9290 9900 20	9294 9900 20
5,72 - 6,00	0	0	0	1	1	1	0	4	5,60	0	0	2	0	0	5	9290 9900 21	9294 9900 21
6,00 - 6,28	0	1	0	0	2	0	0	4	5,88	0	3	0	0	0	5	9290 9900 22	9294 9900 22
6,28 - 6,56	0	0	1	0	1	1	0	4	6,16	3	0	1	0	0	5	9290 9900 23	9294 9900 23
6,56 - 6,84	0	0	0	1	1	1	0	4	6,44	0	0	1	1	0	5	9290 9900 24	9294 9900 24
6,84 - 7,12	0	1	0	0	1	0	1	4	6,72	0	2	1	0	0	5	9290 9900 25	9294 9900 25
7,12 - 7,40	0	0	1	0	1	0	1	4	7,00	1	3	0	0	0	6	9290 9900 26	9294 9900 26
7,40 - 7,68	0	0	0	1	1	0	1	4	7,28	0	0	0	2	0	6	9290 9900 27	9294 9900 27
7,68 - 7,96	0	1	0	0	0	1	1	5	7,56	0	1	2	0	0	6	9290 9900 28	9294 9900 28
7,96 - 8,24	0	0	1	0	0	1	1	5	7,84	0	4	0	0	0	6	9290 9900 29	9294 9900 29
8,24 - 8,52	0	0	0	1	0	1	1	5	8,12	2	3	0	0	0	6	9290 9900 30	9294 9900 30
8,52 - 8,80	0	1	0	0	0	0	2	5	8,40	0	0	3	0	0	6	9290 9900 31	9294 9900 31
8,80 - 9,08	0	0	1	0	0	0	2	5	8,68	0	3	1	0	0	7	9290 9900 32	9294 9900 32
9,08 - 9,36	0	0	0	1	0	0	2	5	8,96	3	0	2	0	0	7	9290 9900 33	9294 9900 33
9,36 - 9,64	0	0	0	1	1	2	0	5	9,24	0	0	2	1	0	7	9290 9900 34	9294 9900 34
9,64 - 9,92	0	1	0	0	1	1	1	6	9,52	0	2	2	0	0	7	9290 9900 35	9294 9900 35
9,92 - 10,20	0	0	1	0	1	1	1	6	9,80	3	0	1	1	0	7	9290 9900 36	9294 9900 36
10,20 - 10,48	0	0	0	1	0	3	0	6	10,08	0	0	1	2	0	8	9290 9900 37	9294 9900 37
10,48 - 10,76	0	1	0	0	1	0	2	6	10,36	0	2	1	1	0	8	9290 9900 38	9294 9900 38
10,76 - 11,04	0	0	1	0	1	0	2	6	10,64	0	4	1	0	0	8	9290 9900 39	9294 9900 39
11,04 - 11,32	0	0	0	1	1	0	2	6	10,92	0	0	0	3	0	8	9290 9900 40	9294 9900 40
11,32 - 11,60	0	1	0	0	0	1	2	6	11,20	0	0	4	0	0	8	9290 9900 41	9294 9900 41
11,60 - 11,88	0	0	1	0	0	1	2	7	11,48	0	3	2	0	0	8	9290 9900 42	9294 9900 42
11,88 - 12,16	1	0	0	0	0	0	3	7	11,76	3	0	3	0	0	8	9290 9900 43	9294 9900 43
12,16 - 12,44	0	1	0	0	0	0	3	7	12,04	0	0	3	1	0	9	9290 9900 44	9294 9900 44
12,44 - 12,72	0	0	1	0	0	0	3	7	12,32	0	2	3	0	0	9	9290 9900 45	9294 9900 45
12,72 - 13,00	0	0	0	1	0	0	3	7	12,60	0	5	1	0	0	9	9290 9900 46	9294 9900 46
13,00 - 13,28	0	0	0	1	1	2	1	7	12,88	0	0	2	2	0	9	9290 9900 47	9294 9900 47
13,28 - 13,56	0	1	0	0	0	3	1	7	13,16	0	2	2	1	0	9	9290 9900 48	9294 9900 48
13,56 - 13,84	0	0	1	0	0	3	1	8	13,44	2	0	4	0	0	9	9290 9900 49	9294 9900 49
13,84 - 14,12	0	0	0	1	0	3	1	8	13,72	0	0	1	3	0	10	9290 9900 50	9294 9900 50
14,12 - 14,40	0	1	0	0	1	0	3	8	14,00	0	0	5	0	0	10	9290 9900 51	9294 9900 51
14,40 - 14,68	0	0	1	0	1	0	3	8	14,28	0	3	3	0	0	10	9290 9900 52	9294 9900 52
14,68 - 14,96	0	0	0	1	1	0	3	8	14,56	0	0	0	4	0	10	9290 9900 53	9294 9900 53
14,96 - 15,24	0	1	0	0	0	1	3	8	14,84	0	0	4	1	0	10	9290 9900 54	9294 9900 54
15,24 - 15,52	0	0	1	0	0	1	3	8	15,12	1	0	5	0	0	10	9290 9900 55	9294 9900 55
15,52 - 15,80	0	0	0	1	0	1	3	9	15,40	1	0	5	0	0	10	9290 9900 56	9294 9900 56
15,80 - 16,08	1	0	0	0	1	2	2	9	15,68	0	0	3	2	0	11	9290 9900 57	9294 9900 57
16,08 - 16,36	0	1	0	0	1	2	2	9	15,96	0	1	5	0	0	11	9290 9900 58	9294 9900 58
16,36 - 16,64	0	0	1	0	1	2	2	9	16,24	0	4	3	0	0	11	9290 9900 59	9294 9900 59
16,64 - 16,92	1	0	0	0	1	1	3	9	16,52	0	0	3	2	0	11	9290 9900 60	9294 9900 60
16,92 - 17,20	0	1	0	0	1	1	3	9	16,80	0	0	6	0	0	11	9290 9900 61	9294 9900 61
17,20 - 17,48	0	0	1	0	1	1	3	9	17,08	0	3	4	0	0	12	9290 9900 62	9294 9900 62
17,48 - 17,76	1	0	0	0	0	2	3	10	17,36	0	0	1	4	0	12	9290 9900 63	9294 9900 63
17,76 - 18,04	0	1	0	0	0	2	3	10	17,64	0	0	5	1	0	12	9290 9900 64	9294 9900 64
18,04 - 18,32	0	0	1	0	0	2	3	10	17,92	0	2	5	0	0	12	9290 9900 65	9294 9900 65
18,32 - 18,60	0	0	0	1	0	2	3	10	18,20	0	0	0	5	0	12	9290 9900 66	9294 9900 66
18,60 - 18,88	1	0	0	0	2	1	3	10	18,48	0	0	4	2	0	12	9290 9900 67	9294 9900 67
18,88 - 19,16	0	1	0	0	2	1	3	10	18,76	0	1	6	0	0	13	9290 9900 68	9294 9900 68
19,16 - 19,44	0	0	1	0	2	1	3	10	19,04	0	4	4	0	0	13	9290 9900 69	9294 9900 69
19,44 - 19,72	1	0	0	0	1	2	3	11	19,32	0	2	3	3	0	13	9290 9900 70	9294 9900 70
19,72 - 20,00	0	1	0	0	1	2	3	11	19,60	0	0	10	0	0	13	9290 9900 71	9294 9900 71

Number of rest platforms should be determined based on the user and the user categories A, B or C. See planning aid for fixed ladders.

*) U-bolt 0929.85.43 for U-profile rungs

The following articles are also included within the scope of delivery for the fall arrest system:

- | | | | |
|----------------------|---------------------------|-------------------------|--------------------|
| 1 pivoting entry aid | Typ 0929.67.02 | 2 ladder hooks each | Typ 0929.14.50 |
| 1 end stop each | Typ 0529.40.06/0529.40.07 | 1 set of base plates | Typ 0929.16.10 |
| 1 platform | Typ 0929.2310 | 2 identification plates | Typ 0173, Typ 0175 |



TWO STILE LADDERS Basic ladders – rail Ø 34 mm

Coloured ladders available on enquiry

Material

Steel/hot-dip galv. Stainless steel Aluminium Fibreglass on enquiry

Typical features

- »» Narrow ladder type
- »» Stile Ø 34 mm

Benefits

- »» Standardised system
- »» Simple assembly
- »» For confined areas

Application

- »» General use



Tubular profile rungs

Design

Steel, hot-dip galvanised in accordance with DIN EN ISO 1461, or V4A stainless steel.

Stiles made of round tubular steel.

Rungs made of square tubular steel profile with slip resistant grooves.

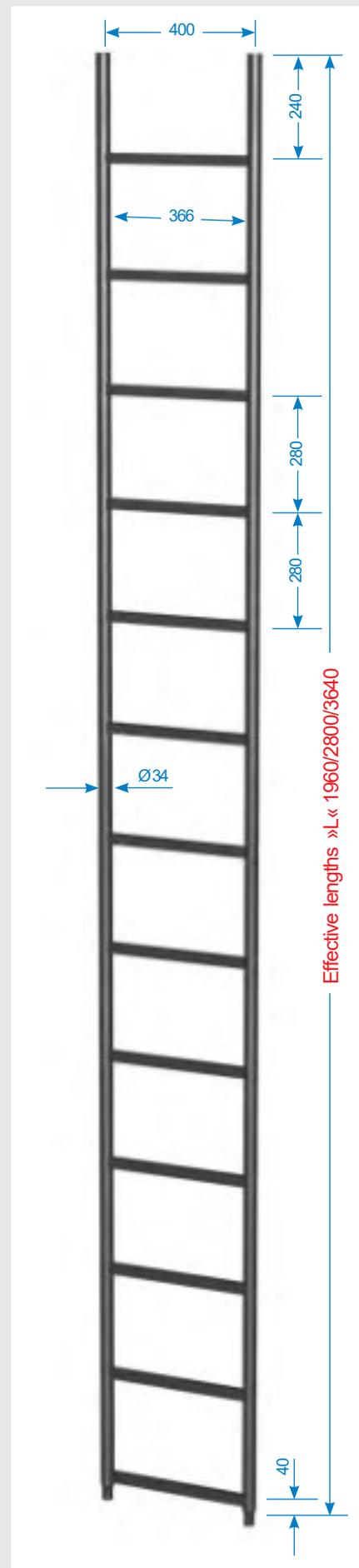
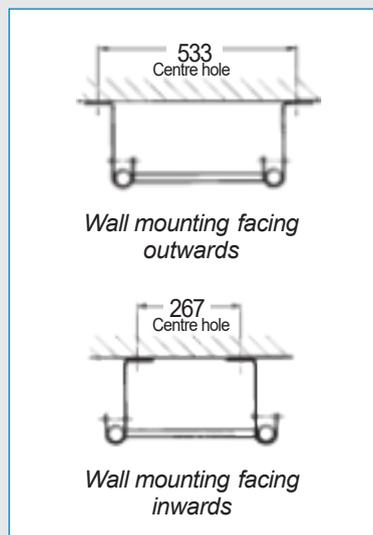
Stile/rung joints connected using gas shielded arc welding.

Accessories and special equipment

and fixing dowels: see Accessories.

Dimensions

Rung distance	280 mm
Outer width of ladder (without fall protection)	434 mm
Clearwidth	366 mm
Stile distance	400 mm
Stiles	Ø 34 mm



Longer ladders (e.g. to bridge wall openings) are available on enquiry. If you wish to compile the length of your ladder yourself please consider the information page »Areas of use and requirements placed on fixed ladders« and the application examples we provide there.

Basic ladders

Model 5289 with tubular profile rungs 25 x 25 mm				Steel, hot-dip galvanised
Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	9,2	5289 0000 07
10	2,80	2,84	13,4	5289 0000 10
13	3,64	3,68	16,9	5289 0000 13



Model 9289 with tubular profile rungs 25 x 25 mm				V4A stainless steel
Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	9,0	9289 0000 07
10	2,80	2,84	13,2	9289 0000 10
13	3,64	3,68	16,6	9289 0000 13



Model 9286 with tubular profile rungs 25 x 25 mm				V2A stainless steel
Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	9,0	9286 0000 07
10	2,80	2,84	13,2	9286 0000 10
13	3,64	3,68	16,6	9286 0000 13

All kind of custom-made products available on enquiry!

We would like to provide advice!
 Just contact the HACA-Team via
 +49 (0) 6434 25-0 or
 hallo@haca.com



Parts list Ladders with fall protection with clear diameter 366 mm

Single section up to 10 m				Steel, hot-dip galvanised						
Climbing height from to m	Ladder combination Model 5289			Ladder hook Model 0528.14.50	Wall mount Model 0528.06.10	Rear safety-guard Model 0528.01.05	Safety cage connection Model 0529.02	Transfer platform Model 0528.20.03	With tubular profile rungs	
	7	10	13	Units	Pairs	Units	m	Units	Order No.	
1,80- 2,08	1	-	-	2	3	-	-	-	5289 9800 07	
2,64- 2,92	-	1	-	2	4	-	-	-	5289 9800 10	
3,48- 3,76	-	-	1	2	4	-	-	-	5289 9800 13	
3,76- 4,04	2	-	-	2	4	-	-	-	5289 9800 14	
4,04- 4,88	1	1	-	2	5	-	-	-	5289 9800 17	

Safety cage required as from 5 m climbing height.

5,44- 5,72	-	2	-	2	5	4	4,00	-	5289 9800 20
5,72- 6,00	3	-	-	2	5	4	4,50	-	5289 9800 21
6,28- 6,56	-	1	1	2	5	5	5,00	-	5289 9800 23
6,56- 6,84	2	1	-	2	6	5	5,50	-	5289 9800 24
7,12- 7,40	-	-	2	2	6	5	6,00	-	5289 9800 26
7,40- 7,68	1	2	-	2	6	5	6,00	-	5289 9800 27
7,68- 7,96	4	-	-	2	6	6	6,50	-	5289 9800 28
8,24- 8,52	-	3	-	2	6	6	7,00	-	5289 9800 30
8,52- 8,80	3	1	-	2	7	6	7,00	-	5289 9800 31
9,08- 9,36	-	2	1	2	7	6	8,00	-	5289 9800 33
9,36- 9,64	2	2	-	2	7	7	8,00	-	5289 9800 34
9,64- 9,92	5	-	-	2	7	7	8,50	-	5289 9800 35

Two section – transfer platforms necessary every 10 m climbing

10,20- 10,48	5	1	-	2	10	7	11,00	1	5289 9800 43
10,48- 10,76	3	-	2	2	10	7	11,50	1	5289 9800 44
10,76- 11,04	-	1	3	2	10	7	12,00	1	5289 9800 45
11,04- 11,32	-	1	3	2	10	7	12,00	1	5289 9800 46
11,32- 11,60	-	1	3	2	10	8	12,00	1	5289 9800 47
11,60- 11,88	1	3	1	2	10	9	12,50	1	5289 9800 48
11,88- 12,16	3	3	-	2	11	9	13,00	1	5289 9800 49
12,16- 12,44	6	1	-	2	11	9	13,00	1	5289 9800 50
12,44- 12,72	4	-	2	2	11	9	13,00	1	5289 9800 51
12,72- 13,00	-	3	2	2	11	9	13,50	1	5289 9800 52
13,00- 13,28	-	3	2	2	11	9	14,00	1	5289 9800 53
13,28- 13,56	-	3	2	2	11	9	14,00	1	5289 9800 54
13,56- 13,84	1	5	-	2	11	9	14,50	1	5289 9800 55
13,84- 14,12	4	3	-	2	12	9	15,00	1	5289 9800 56
14,12- 14,40	7	1	-	2	12	9	15,00	1	5289 9800 57
14,40- 14,68	4	2	1	2	12	9	15,00	1	5289 9800 58
14,68- 14,96	-	5	1	2	12	10	16,00	1	5289 9800 59
14,96- 15,24	-	5	1	2	12	11	16,00	1	5289 9800 60
15,24- 15,52	-	5	1	2	12	11	16,00	1	5289 9800 61
15,52- 15,80	2	5	-	2	12	11	16,50	1	5289 9800 62
15,80- 16,08	5	3	-	2	13	11	17,00	1	5289 9800 63
16,08- 16,36	8	1	-	2	13	11	17,00	1	5289 9800 64
16,36- 16,64	5	2	1	2	13	11	17,00	1	5289 9800 65
16,64- 16,92	-	3	3	2	13	11	17,50	1	5289 9800 66
16,92- 17,20	-	3	3	2	13	11	18,00	1	5289 9800 67
17,20- 17,48	1	5	1	2	13	11	18,00	1	5289 9800 68
17,48- 17,76	3	5	-	2	13	12	18,00	1	5289 9800 69
17,76- 18,04	6	3	-	2	14	13	18,50	1	5289 9800 70
18,04- 18,32	9	1	-	2	14	13	19,00	1	5289 9800 71
18,32- 18,60	5	-	3	2	14	13	19,00	1	5289 9800 72
18,60- 18,88	-	1	5	2	14	13	19,50	1	5289 9800 73
18,88- 19,16	-	5	2	2	14	13	20,00	1	5289 9800 74
19,16- 19,44	1	7	-	2	14	13	20,00	1	5289 9800 75
19,44- 19,72	4	5	-	2	14	13	20,50	1	5289 9800 76
19,72- 20,00	7	3	-	2	15	13	21,00	1	5289 9800 77



Parts list Ladders with fall protection with clear diameter 366 mm

Single section up to 10 m

V4A stainless steel

Climbing height from to m	Ladder combination Model 9289			Ladder hook Model 0928.14.50	Wall mount Model 0928.06.10	Rear safety-guard Model 0928.01.05	Safety cage connection Model 0929.02	Transfer platform Model 0928.20.03	With tubular profile rungs
	7	10	13	Units	Pairs	Units	m	Units	Order No.
1,80 - 2,08	1	–	–	2	3	–	–	–	9289 9800 07
2,64 - 2,92	–	1	–	2	4	–	–	–	9289 9800 10
3,48 - 3,76	–	–	1	2	4	–	–	–	9289 9800 13
3,76 - 4,04	2	–	–	2	4	–	–	–	9289 9800 14
4,04 - 4,88	1	1	–	2	5	–	–	–	9289 9800 17

Safety cage required as from 5 m climbing height.

5,44 - 5,72	–	2	–	2	5	4	4,00	–	9289 9800 20
5,72 - 6,00	3	–	–	2	6	4	4,50	–	9289 9800 21
6,28 - 6,56	–	1	1	2	5	5	5,00	–	9289 9800 23
6,56 - 6,84	2	1	–	2	6	5	5,50	–	9289 9800 24
7,12 - 7,40	–	–	2	2	6	5	6,00	–	9289 9800 26
7,40 - 7,68	1	2	–	2	6	5	6,00	–	9289 9800 27
7,68 - 7,96	4	–	–	2	6	6	6,50	–	9289 9800 28
8,24 - 8,52	–	3	–	2	6	6	7,00	–	9289 9800 30
8,52 - 8,80	3	1	–	2	7	6	7,00	–	9289 9800 31
9,08 - 9,36	–	2	1	2	7	6	8,00	–	9289 9800 33
9,36 - 9,64	2	2	–	2	7	7	8,00	–	9289 9800 34
9,64 - 9,92	5	–	–	2	7	7	8,50	–	9289 9800 35

Two section – transfer platforms necessary every 10 m climbing

10,20 - 10,48	5	1	–	2	10	7	11,00	1	9289 9800 43
10,48 - 10,76	3	–	2	2	10	7	11,50	1	9289 9800 44
10,76 - 11,04	–	1	3	2	10	7	12,00	1	9289 9800 45
11,04 - 11,32	–	1	3	2	10	7	12,00	1	9289 9800 46
11,32 - 11,60	–	1	3	2	10	8	12,00	1	9289 9800 47
11,60 - 11,88	1	3	1	2	10	9	12,50	1	9289 9800 48
11,88 - 12,16	3	3	–	2	11	9	13,00	1	9289 9800 49
12,16 - 12,44	6	1	–	2	11	9	13,00	1	9289 9800 50
12,44 - 12,72	4	–	2	2	11	9	13,00	1	9289 9800 51
12,72 - 13,00	–	3	2	2	11	9	13,50	1	9289 9800 52
13,00 - 13,28	–	3	2	2	11	9	14,00	1	9289 9800 53
13,28 - 13,56	–	3	2	2	11	9	14,00	1	9289 9800 54
13,56 - 13,84	1	5	–	2	11	9	14,50	1	9289 9800 55
13,84 - 14,12	4	3	–	2	12	9	15,00	1	9289 9800 56
14,12 - 14,40	7	1	–	2	12	9	15,00	1	9289 9800 57
14,40 - 14,68	4	2	1	2	12	9	15,00	1	9289 9800 58
14,68 - 14,96	–	5	1	2	12	10	16,00	1	9289 9800 59
14,96 - 15,24	–	5	1	2	12	11	16,00	1	9289 9800 60
15,24 - 15,52	–	5	1	2	12	11	16,00	1	9289 9800 61
15,52 - 15,80	2	5	–	2	12	11	16,50	1	9289 9800 62
15,80 - 16,08	5	3	–	2	13	11	17,00	1	9289 9800 63
16,08 - 16,36	8	1	–	2	13	11	17,00	1	9289 9800 64
16,36 - 16,64	5	2	1	2	13	11	17,00	1	9289 9800 65
16,64 - 16,92	–	3	3	2	13	11	17,50	1	9289 9800 66
16,92 - 17,20	–	3	3	2	13	11	18,00	1	9289 9800 67
17,20 - 17,48	1	5	1	2	13	11	18,00	1	9289 9800 68
17,48 - 17,76	3	5	–	2	13	12	18,00	1	9289 9800 69
17,76 - 18,04	6	3	–	2	14	13	18,50	1	9289 9800 70
18,04 - 18,32	9	1	–	2	14	13	19,00	1	9289 9800 71
18,32 - 18,60	5	–	3	2	14	13	19,00	1	9289 9800 72
18,60 - 18,88	–	1	5	2	14	13	19,50	1	9289 9800 73
18,88 - 19,16	–	5	2	2	14	13	20,00	1	9289 9800 74
19,16 - 19,44	1	7	–	2	14	13	20,00	1	9289 9800 75
19,44 - 19,72	4	5	–	2	14	13	20,50	1	9289 9800 76
19,72 - 20,00	7	3	–	2	15	13	21,00	1	9289 9800 77

TWO STILE LADDERS Ladders with fall protection

Coloured ladders available on enquiry

Material

Steel/hot-dip galv.
 Stainless steel
 Aluminium
 Fibreglass on enquiry

Typical features

- »» Narrow ladder type
- »» Stile Ø 34 mm

Application

- »» General use

Benefits

- »» Standardised system
- »» Simple assembly
- »» Continuous fall arrest system



Model 5282

Design

Steel, hot-dip galvanised in acc. with DIN EN ISO 1461 or V4A stainless steel.

Stiles made of round tubular steel.

Rungs made of square tubular steel profile with slip resistant grooves..

Stile/rung connected using gas-shielded arc welding.

Fall arrest rail made of L-profile (top hat section).

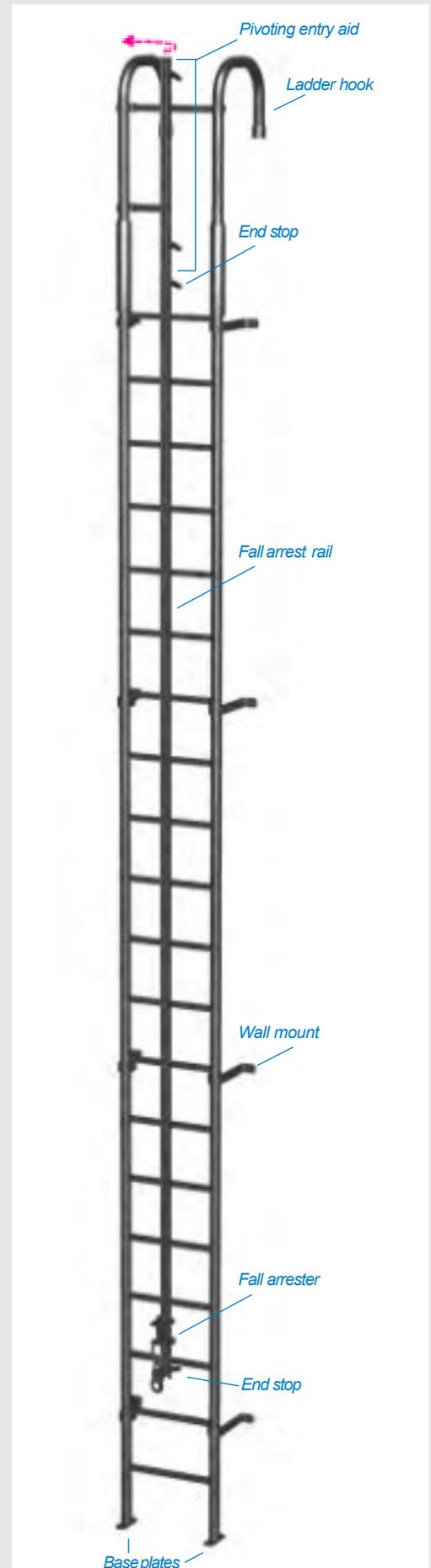
Scope of delivery

This contains all parts required for construction according to regulations. Products are delivered disassembled.

Special equipment

For alternatives to series designs, special equipment and fixing dowels: see Accessories.

For correct **fall arresters** and **safety harnesses** see »Personal Protective Equipment«.



heights.

By contrast with ladders with safety cage, ladders with fall arrest equipment are not subject to any height restrictions and provide real protection against fall from heights.



DIN EN 14 396 · CE 0158
Workplaces Ordinance (ArbStättV)

Parts list Ladders with fall protection with clear diameter 366mm and according to DIN EN 14396

Fall protection required as from 5 m **Steel, hot-dip galvanised**

Climbing height from to m	Ladder combination Model 5289			Ladder hook Model 0528.14.50	Wall mount Model 0528.06.10	Fall arrest rail length m	Fall arrest rail combination Model 0529.66.03				U-bolt Model 0529.85.40	With tubular profile rungs
	7	10	13	Units	Pairs		4	7	10	13	Units	Order No.
5,44 - 5,72	–	2	–	2	4	5,04	2	–	1	–	5	5289 9900 20
5,72 - 6,00	3	–	–	2	5	5,32	3	1	–	–	5	5289 9900 21
6,28 - 6,56	–	1	1	2	5	5,88	–	3	–	–	5	5289 9900 23
6,56 - 6,84	2	1	–	2	5	6,16	3	–	1	–	5	5289 9900 24
7,12 - 7,40	–	–	2	2	5	6,72	–	2	1	–	6	5289 9900 26
7,40 - 7,68	1	2	–	2	5	7,00	1	3	–	–	6	5289 9900 27
7,68 - 7,96	4	–	–	2	7	7,28	–	–	–	2	6	5289 9900 28
8,24 - 8,52	–	3	–	2	6	7,84	–	4	–	–	6	5289 9900 30
8,52 - 8,80	3	1	–	2	7	8,12	2	3	–	–	6	5289 9900 31
9,08 - 9,36	–	2	1	2	6	8,68	–	3	1	–	7	5289 9900 33
9,36 - 9,64	2	2	–	2	7	8,96	3	–	2	–	7	5289 9900 34
9,64 - 9,92	5	–	–	2	9	9,24	–	–	2	1	7	5289 9900 35

Transfer platforms necessary every 10 m climbing height! Please order separately – see accessories

9,92 - 10,20	–	1	2	2	7	9,52	–	2	2	–	7	5289 9900 36
10,20 - 10,48	1	3	–	2	7	9,80	3	–	1	1	7	5289 9900 37
10,48 - 10,76	4	1	–	2	9	10,08	–	–	1	2	7	5289 9900 38
10,76 - 11,04	–	–	3	2	7	10,36	–	2	1	1	8	5289 9900 39
11,04 - 11,32	–	4	–	2	7	10,64	–	4	1	–	8	5289 9900 40
11,32 - 11,60	3	2	–	2	9	10,92	–	–	–	3	8	5289 9900 41
11,60 - 11,88	6	–	–	2	11	11,20	–	–	4	–	8	5289 9900 42
11,88 - 12,16	–	3	1	2	8	11,48	–	3	2	–	8	5289 9900 43
12,16 - 12,44	3	1	1	2	9	11,76	3	–	3	–	8	5289 9900 44
12,44 - 12,72	5	1	–	2	11	12,04	–	–	3	1	9	5289 9900 45
12,72 - 13,00	–	2	2	2	7	12,32	–	2	3	–	9	5289 9900 46
13,00 - 13,28	2	2	1	2	9	12,60	–	5	1	–	9	5289 9900 47
13,28 - 13,56	4	2	–	2	11	12,88	–	–	2	2	9	5289 9900 48
13,56 - 13,84	–	1	3	2	9	13,16	–	2	2	1	9	5289 9900 49
13,84 - 14,12	2	1	2	2	9	13,44	2	–	4	–	9	5289 9900 50
14,12 - 14,40	3	3	–	2	11	13,72	–	–	1	3	10	5289 9900 51
14,40 - 14,68	6	1	–	2	13	14,00	–	–	5	–	10	5289 9900 52
14,68 - 14,96	1	2	2	2	9	14,28	–	3	3	–	10	5289 9900 53
14,96 - 15,24	4	–	2	2	11	14,56	–	–	–	4	10	5289 9900 54
15,24 - 15,52	5	2	–	2	13	14,84	–	–	4	1	10	5289 9900 55
15,52 - 15,80	8	–	–	2	15	15,12	1	–	5	–	10	5289 9900 56
15,80 - 16,08	1	5	–	2	11	15,40	1	3	3	–	11	5289 9900 57
16,08 - 16,36	4	3	–	2	13	15,68	–	–	3	2	11	5289 9900 58
16,36 - 16,64	7	1	–	2	15	15,96	–	–	1	5	11	5289 9900 59
16,64 - 16,92	–	6	–	2	11	16,24	–	–	4	3	12	5289 9900 60
16,92 - 17,20	3	4	–	2	13	16,52	–	–	2	3	12	5289 9900 61
17,20 - 17,48	6	2	–	2	17	16,80	–	–	6	–	12	5289 9900 62
17,48 - 17,76	5	1	–	2	11	17,08	–	–	3	4	12	5289 9900 63
17,76 - 18,04	3	3	1	2	11	17,36	–	–	1	4	12	5289 9900 64
18,04 - 18,32	5	3	–	2	17	17,64	–	–	5	1	12	5289 9900 65
18,32 - 18,60	8	1	–	2	17	17,92	–	2	5	–	13	5289 9900 66
18,60 - 18,88	2	4	1	2	13	18,20	–	–	–	5	13	5289 9900 67
18,88 - 19,16	5	2	1	2	15	18,48	–	–	4	2	13	5289 9900 68
19,16 - 19,44	7	2	–	2	17	18,76	–	1	6	–	13	5289 9900 69
19,44 - 19,72	2	3	2	2	13	19,04	–	4	4	–	13	5289 9900 70
19,72 - 20,00	3	5	–	2	15	19,32	–	–	3	3	13	5289 9900 71

The following articles are also included within the scope of delivery for the fall arrest system:

- 1 pivoting entry aid **Typ 0528.67**
- 1 end stop each **Typ 0529.40.06/0529.40.07**
- 1 set of base plates **Typ 0528.16.10**
- 1 identification plate **Typ 0176**

Parts list Ladders with fall protectionz Ladders according to **DIN EN 14 396**



Fall protection required as from 5 m

V4A stainless steel

Climbing height from to m	Ladder combination Model 9289			Ladder hook Model 0928.14.50	Wall mount Model 0928.06.10	Fall arrest rail length m	Fall arrest rail combination Model 0929.66.03				U-bolt Model 0929.85.40	With tubular profile rungs
	7	10	13	Units.	Pairs		4	7	10	13	Units	Order No.
5,44 - 5,72	-	2	-	2	4	5,04	2	-	1	-	5	9289 9900 20
5,72 - 6,00	3	-	-	2	6	5,32	3	1	-	-	5	9289 9900 21
6,28 - 6,56	-	1	1	2	5	5,88	-	3	-	-	5	9289 9900 23
6,56 - 6,84	2	1	-	2	6	6,16	3	-	1	-	5	9289 9900 24
7,12 - 7,40	-	-	2	2	5	6,72	-	2	1	-	6	9289 9900 26
7,40 - 7,68	1	2	-	2	6	7,00	1	3	-	-	6	9289 9900 27
7,68 - 7,96	4	-	-	2	8	7,28	-	-	-	2	6	9289 9900 28
8,24 - 8,52	-	3	-	2	6	7,84	-	4	-	-	6	9289 9900 30
8,52 - 8,80	3	1	-	2	8	8,12	2	3	-	-	6	9289 9900 31
9,08 - 9,36	-	2	1	2	6	8,68	-	3	1	-	7	9289 9900 33
9,36 - 9,64	2	2	-	2	8	8,96	3	-	2	-	7	9289 9900 34
9,64 - 9,92	5	-	-	2	10	9,24	-	-	2	1	7	9289 9900 35

Transfer platforms necessary every 10 m climbing height! Please order separately – see accessories

9,92 - 10,20	-	1	2	2	7	9,52	-	2	2	-	7	9289 9900 36
10,20 - 10,48	1	3	-	2	8	9,80	3	-	1	1	7	9289 9900 37
10,48 - 10,76	4	1	-	2	10	10,08	-	-	1	2	7	9289 9900 38
10,76 - 11,04	-	-	3	2	7	10,36	-	2	1	1	8	9289 9900 39
11,04 - 11,32	-	4	-	2	8	10,64	-	4	1	-	8	9289 9900 40
11,32 - 11,60	3	2	-	2	10	10,92	-	-	-	3	8	9289 9900 41
11,60 - 11,88	6	-	-	2	12	11,20	-	-	4	-	8	9289 9900 42
11,88 - 12,16	-	3	1	2	8	11,48	-	3	2	-	8	9289 9900 43
12,16 - 12,44	3	1	1	2	10	11,76	3	-	3	-	8	9289 9900 44
12,44 - 12,72	5	1	-	2	12	12,04	-	-	3	1	9	9289 9900 45
12,72 - 13,00	-	2	2	2	8	12,32	-	2	3	-	9	9289 9900 46
13,00 - 13,28	2	2	1	2	10	12,60	-	5	1	-	9	9289 9900 47
13,28 - 13,56	4	2	-	2	12	12,88	-	-	2	2	9	9289 9900 48
13,56 - 13,84	-	1	3	2	9	13,16	-	2	2	1	9	9289 9900 49
13,84 - 14,12	2	1	2	2	10	13,44	2	-	4	-	9	9289 9900 50
14,12 - 14,40	3	3	-	2	12	13,72	-	-	1	3	10	9289 9900 51
14,40 - 14,68	6	1	-	2	14	14,00	-	-	5	-	10	9289 9900 52
14,68 - 14,96	1	2	2	2	10	14,28	-	3	3	-	10	9289 9900 53
14,96 - 15,24	4	-	2	2	12	14,56	-	-	-	4	10	9289 9900 54
15,24 - 15,52	5	2	-	2	14	14,84	-	-	4	1	10	9289 9900 55
15,52 - 15,80	8	-	-	2	16	15,12	1	-	5	-	10	9289 9900 56
15,80 - 16,08	1	5	-	2	12	15,40	1	3	3	-	11	9289 9900 57
16,08 - 16,36	4	3	-	2	14	15,68	-	-	3	2	11	9289 9900 58
16,36 - 16,64	7	1	-	2	16	15,96	-	-	1	5	11	9289 9900 59
16,64 - 16,92	-	6	-	2	12	16,24	-	-	4	3	12	9289 9900 60
16,92 - 17,20	3	4	-	2	15	16,52	-	-	2	3	12	9289 9900 61
17,20 - 17,48	6	2	-	2	17	16,80	-	-	6	-	12	9289 9900 62
17,48 - 17,76	5	1	-	2	13	17,08	-	-	3	4	12	9289 9900 63
17,76 - 18,04	3	3	1	2	15	17,36	-	-	1	4	12	9289 9900 64
18,04 - 18,32	5	3	-	2	17	17,64	-	-	5	1	12	9289 9900 65
18,32 - 18,60	8	1	-	2	19	17,92	-	2	5	-	13	9289 9900 66
18,60 - 18,88	2	4	1	2	15	18,20	-	-	-	5	13	9289 9900 67
18,88 - 19,16	5	2	1	2	17	18,48	-	-	4	2	13	9289 9900 68
19,16 - 19,44	7	2	-	2	19	18,76	-	1	6	-	13	9289 9900 69
19,44 - 19,72	2	3	2	2	15	19,04	-	4	4	-	13	9289 9900 70
19,72 - 20,00	3	5	-	2	17	19,32	-	-	3	3	13	9289 9900 71

The following articles are also included within the scope of delivery for the fall arrest system:

- 1 pivoting entry aid **Typ 0928.67**
- 1 end stop each **Typ 0529.40.06/0529.40.07**
- 1 set of base plates **Typ 0928.16.10**
- 1 identification plate **Typ 0176**



TWO STILE LADDERS

For machine inspection – basic ladders

Coloured ladders available on enquiry

Material

8 Steel/hot-dip galv. » Stainless steel » Aluminium » Fibreglass on enquiry

Typical features

- »» Wide ladder type
- »» Stile Ø 34 mm

Benefits

- »» Standardised system
- »» Simple assembly
- »» Slip resistant
- »» Comfortable to use

Application

- »» General use
- »» Emergency ladders
- »» Suitable for shafts



Tubular profile rungs



U-profile rungs

Design

Steel, hot-dip galvanised in acc. with DIN EN ISO 1461.

Stiles made of round tubular steel.

Rungs made of square tubular steel profile with slip resistant grooves or U-profile with double row of extremely slip resistant, upwards-extruded hole pattern (apart from aluminium ladders).

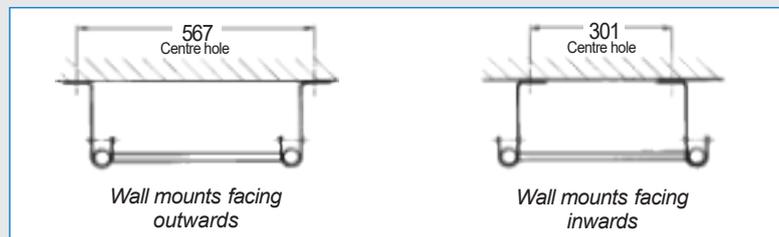
Stiles/rung joints connected using gas shielded arc welding.

Accessories and special equipment

and fixing dowels: see Accessories.

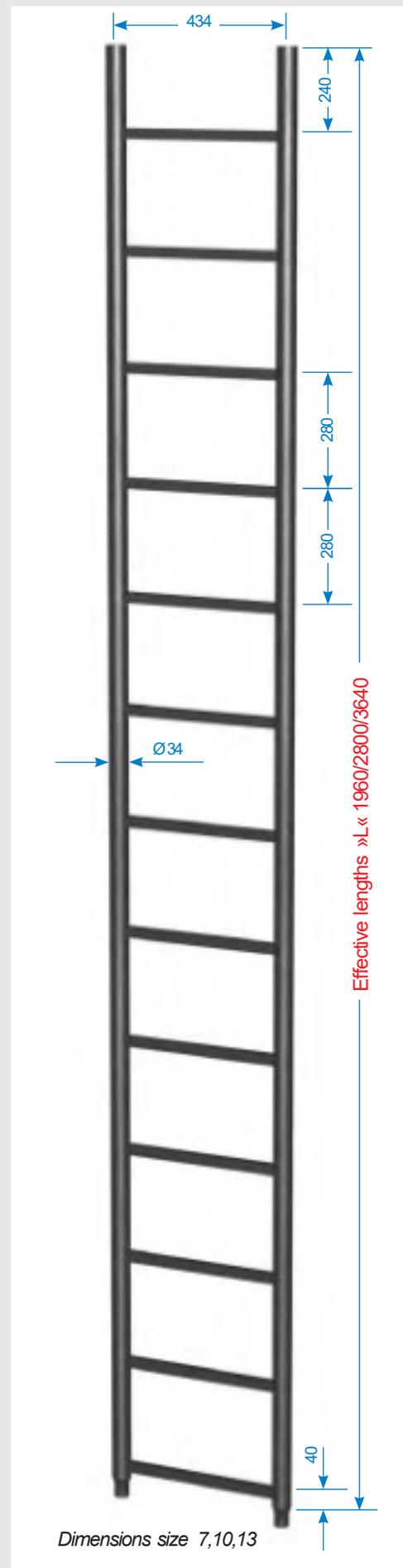
Dimensions

Rung distance	280 mm
Outer ladder width (without fall protection)	468 mm
Clearwidth	400 mm
Rail distance	434 mm
Stiles	Ø 34 mm



Longer ladders (e.g. to bridge wall openings) are available on enquiry. If you wish to compile the length of your ladder yourself please consider the information page »Areas of use and requirements placed on fixed ladders« and the application examples we provide there.
Complete sets of this model of ladder available on enquiry.

· · · : 2019
 Workplaces Ordinance (ArbStättV)



Basic ladders

Model 5288 with tubular profile rungs 25 x 25 mm

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	9,7	5288 0000 07
10	2,80	2,84	14,8	5288 0000 10
13	3,64	3,68	19,7	5288 0000 13

Model 5285 with U-profile rungs 25 x 25 mm

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	9,5	5285 0000 07
10	2,80	2,84	14,4	5285 0000 10
13	3,64	3,68	19,1	5285 0000 13

Adapters

Model 5288.05 with tubular profile rungs 25 x 25 mm (for basicladder 5288)

Steel, hot-dip galvanised

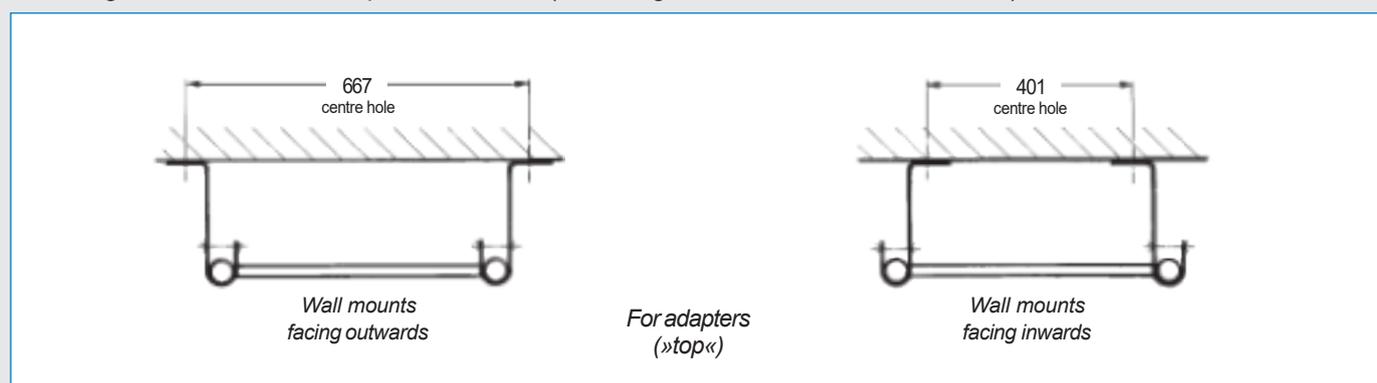
Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,14	5,5	5288 0500 04
5	1,40	1,44	6,8	5288 0500 05
6	1,68	1,72	8,1	5288 0500 06
7	1,96	2,00	9,4	5288 0500 07

Model 5285 with U-profile rungs 25 x 25 mm (for basicladder 5285)

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,14	5,3	5285 0500 04
5	1,40	1,44	6,6	5285 0500 05
6	1,68	1,72	7,8	5285 0500 06
7	1,96	2,00	9,1	5285 0500 07

Mounting dimensions at the top of the ladder (Mounting dimensions bottom see A.30)



TWO STILE LADDERS for shafts and waterworks – basic ladders

Coloured ladders available on enquiry

Material

8 Steel/hot-dip galv. 8 Stainless steel » Aluminium » Fibreglass on enquiry

Typical features

- »» Narrow ladder type
- »» Stile Ø 34 mm

Benefits

- »» Standardised system
- »» Simple assembly
- »» Extremely slip resistant
- »» For confined areas

Benefits V4A stainless steel

- »» Extremely resistant to corrosion
- »» Can be used in drinking water

Application

- »» Specially for use in shafts
- »» General use



Tubular profile rungs



U-profile rungs

Design

Steel, hot-dip galvanised in acc. with DIN EN ISO 1461, or V4A stainless steel.

Stiles made of round tubular steel.

Rungs made of square tubular steel profile with slip resistant grooves or U-profile with double row of extremely slip resistant, upwards-extruded hole pattern (apart from aluminium ladders).

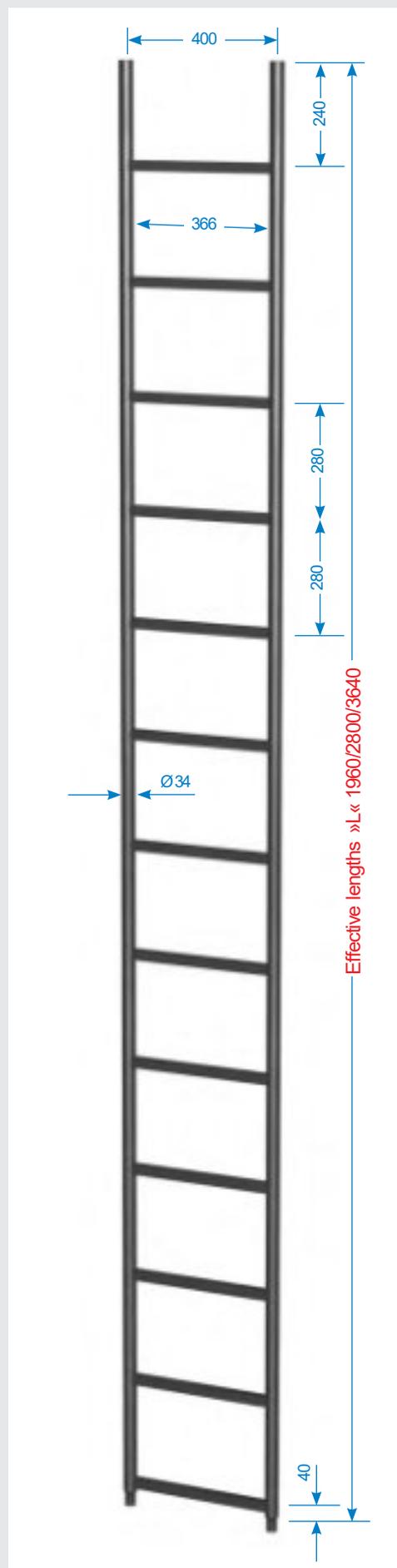
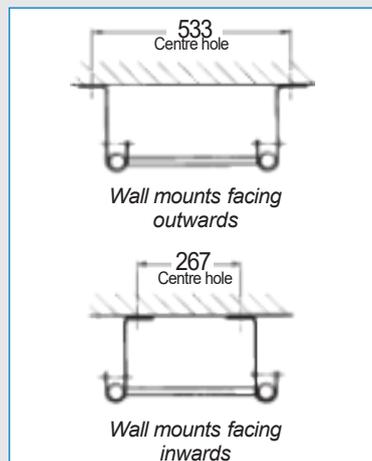
Stiles/rung joints connected using gas shielded arc welding.

Accessories and special equipment

and fixing dowels: see Accessories.

Dimensions

Rung distance	280 mm
Outer ladder width (without fall protection)	434 mm
Clearwidth	366 mm
Rail distance	400 mm
Stiles	Ø 34 mm



Aluminium in wastewater structures

In accordance with EX/RIBGR104 it is not permitted to install aluminium ladders in the potentially explosive areas of Zones 0 and 1 due to the risk of sparks igniting through contact between aluminium and rusty iron. Enclosed sewers and their access points are classed as Zone 1.

Steel in wastewater structures

e.g. in sewer manholes. We recommend ladders made of V4A stainless steel here because of its resistance to corrosion.



DIN EN 14 396

Basic ladders

Model 5284 with U-profile rungs 25 x 25 mm

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	8,9	5284 0000 07
10	2,80	2,84	13,0	5284 0000 10
13	3,64	3,68	16,3	5284 0000 13

Model 5289 with tubular profile rungs 25 x 25 mm

Steel, hot-dip galvanised

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	9,2	5289 0000 07
10	2,80	2,84	13,4	5289 0000 10
13	3,64	3,68	16,9	5289 0000 13



Wall thickness increased by 30% now particularly stable

Model 9284 with U-profile rungs 25 x 25 mm

V4A stainless steel

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,18	6,2	9284 0000 04
5	1,40	1,44	7,7	9284 0000 05
6	1,68	1,72	9,2	9284 0000 06
7	1,96	2,00	10,7	9284 0000 07
10	2,80	2,84	15,3	9284 0000 10
13	3,64	3,68	19,8	9284 0000 13



Wall thickness increased by 30% now particularly stable

Model 9289 with tubular profile rungs 25 x 25 mm

V4A stainless steel

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
7	1,96	2,00	10,9	9289 0000 07
10	2,80	2,84	15,6	9289 0000 10
13	3,64	3,68	20,2	9289 0000 13



Wall thickness increased by 30% now particularly stable

Model 9288 with U-profile rungs 25 x 25 mm

V2A stainless steel

Size (rungs)	Effective length »L« approx. m	Total length approx. m	Weight approx. kg	Order No.
4	1,12	1,18	6,1	9288 0000 04
5	1,40	1,44	7,6	9288 0000 05
6	1,68	1,72	9,1	9288 0000 06
7	1,96	2,00	10,6	9288 0000 07
10	2,80	2,84	15,2	9288 0000 10
13	3,64	3,68	19,7	9288 0000 13



TWO STILE LADDERS for shafts and waterworks – with fall protection

Coloured ladders available on enquiry

Material

Steel/hot-dip galv. Stainless steel Aluminium Fibreglass on enquiry

Typische Merkmale

- »» Narrow ladder type
- »» Stile-Ø 34 mm

Benefits

- »» Standardised system
- »» Simple assembly
- »» Extremely slip resistant
- »» For confined areas

Benefits V4A stainless steel

- »» Extremely resistant to corrosion
- »» Can be used in drinking water

Application

- »» Specially for use in shafts
- »» General use



U-Profil-Sprosse



Model 5287
with clip-on entry aid. Special
equipment: adjustable wall mounts
Model 0528.42

Design

Steel, hot-dip galvanised to DIN EN ISO 1461, or V4A stainless steel.

Stiles made of round tubular steel. Rungs made of U-profile with double row of extremely slip resistant, upwards-extruded hole pattern.

stiles/rung joints connected using gas shielded arc welding.

Fall arrest rail made of U-profile (top hat section).

Scope of delivery

This contains all parts required for construction according to regulations. Products are delivered disassembled.

Special equipment

For alternatives to series designs, special equipment and fixing dowels: see Accessories.

For correct fall arresters for model series 0529.60 and safety harnesses see »Personal Protective Equipment«.



DIN EN 14 396 · CE 0158

Parts list Ladders with fall protection Ladders according to **DIN EN 14 396**

Fall protection required as from 5 m **Steel, hot-dip galvanised**

Climbing height from to m	Ladder combination Model 5284			Wall mount Model 0528.06.10	Base-plates Model 0528.16.10	Fall arrest rail length m	Fall arrest rail combination Model 0529.66.03				U-bolt Model 0529.85.43	With U-profile rungs Order No.
	7	10	13	Units	Sets	4	7	10	13	Units		
Up to 5 m shaft depth without fall protection and with side on hand grip Model 0501												
1,80 - 2,08	1	-	-	2	-	-	-	-	-	-	-	5284 9900 07
2,64 - 2,92	-	1	-	3	-	-	-	-	-	-	-	5284 9900 10
3,48 - 3,76	-	-	1	3	-	-	-	-	-	-	-	5284 9900 13
3,76 - 4,04	2	-	-	4	-	-	-	-	-	-	-	5284 9900 14
4,04 - 4,88	1	1	-	4	-	-	-	-	-	-	-	5284 9900 17

As from 5 m shaft depth with fall protection and clip-on entry aid Model 0529.65.03												
5,44 - 5,72	-	2	-	3	1	5,04	2	-	1	-	5	5284 9900 20
5,72 - 6,00	3	-	-	5	1	5,32	3	1	-	-	5	5284 9900 21
6,28 - 6,56	-	1	1	4	1	5,88	-	3	-	-	5	5284 9900 23
6,56 - 6,84	2	1	-	5	1	6,16	3	-	1	-	5	5284 9900 24
7,12 - 7,40	-	-	2	4	1	6,72	-	2	1	-	6	5284 9900 26
7,40 - 7,68	1	2	-	5	1	7,00	1	3	-	-	6	5284 9900 27
7,68 - 7,96	4	-	-	7	1	7,28	-	-	-	2	6	5284 9900 28
8,24 - 8,52	-	3	-	5	1	7,84	-	4	-	-	6	5284 9900 30
8,52 - 8,80	3	1	-	7	1	8,12	2	3	-	-	6	5284 9900 31
9,08 - 9,36	-	2	1	5	1	8,68	-	3	1	-	7	5284 9900 33
9,36 - 9,64	2	2	-	7	1	8,96	3	-	2	-	7	5284 9900 34
9,64 - 9,92	5	-	-	9	1	9,24	-	-	2	1	7	5284 9900 35

Rest platforms required every 10 m shaft depth! Please order separately – see accessories												
9,92 - 10,20	-	1	2	6	1	9,52	-	2	2	-	7	5284 9900 36
10,20 - 10,48	1	3	-	7	1	9,80	3	-	1	1	7	5284 9900 37
10,48 - 10,76	4	1	-	9	1	10,08	-	-	1	2	7	5284 9900 38
10,76 - 11,04	-	-	3	6	1	10,36	-	2	1	1	8	5284 9900 39
11,04 - 11,32	-	4	-	7	1	10,64	-	4	1	-	8	5284 9900 40
11,32 - 11,60	3	2	-	9	1	10,92	-	-	-	3	8	5284 9900 41
11,60 - 11,88	6	-	-	11	1	11,20	-	-	4	-	8	5284 9900 42
11,88 - 12,16	-	3	1	7	1	11,48	-	3	2	-	8	5284 9900 43
12,16 - 12,44	3	1	1	9	1	11,76	3	-	3	-	8	5284 9900 44
12,44 - 12,72	5	1	-	11	1	12,04	-	-	3	1	9	5284 9900 45
12,72 - 13,00	-	2	2	7	1	12,32	-	2	3	-	9	5284 9900 46
13,00 - 13,28	2	2	1	9	1	12,60	-	5	1	-	9	5284 9900 47
13,28 - 13,56	4	2	-	11	1	12,88	-	-	2	2	9	5284 9900 48
13,56 - 13,84	-	1	3	8	1	13,16	-	2	2	1	9	5284 9900 49
13,84 - 14,12	2	1	2	9	1	13,44	2	-	4	-	9	5284 9900 50
14,12 - 14,40	3	3	-	11	1	13,72	-	-	1	3	10	5284 9900 51
14,40 - 14,68	6	1	-	13	1	14,00	-	-	5	-	10	5284 9900 52
14,68 - 14,96	1	2	2	9	1	14,28	-	3	3	-	10	5284 9900 53
14,96 - 15,24	4	-	2	11	1	14,56	-	-	-	4	10	5284 9900 54
15,24 - 15,52	5	2	-	13	1	14,84	-	-	4	1	10	5284 9900 55
15,52 - 15,80	8	-	-	15	1	15,12	1	-	5	-	10	5284 9900 56
15,80 - 16,08	1	5	-	11	1	15,40	1	3	3	-	11	5284 9900 57
16,08 - 16,36	4	3	-	13	1	15,68	-	-	3	2	11	5284 9900 58
16,36 - 16,64	7	1	-	15	1	15,96	-	1	5	-	11	5284 9900 59
16,64 - 16,92	-	6	-	11	1	16,24	-	4	3	-	11	5284 9900 60

If footplates are not used, an additional pair of wall brackets with a tension strap can be used.

The following articles are also included within the scope of delivery for the fall protection system:

- 1 counter bracket for clip-on entry aid **Typ 0929.84.04**
- 1 end stop each **Typ 0529.40.06/0529.40.07**
- 1 identification plate **Typ 0176**

Parts list Ladders with fall protection Ladders according to DIN EN 14 396



Fall protection required as from 5 m **V4A stainless steel**

Climbing height from to m	Ladder combination Model 9284			Wall mount Model 0928.06.10	Base-plates Model 0928.16.10	Fall arrest rail length m	Fall arrest rail combination Model 0929.66.03				U-bolt Model 0929.85.43	With U-profile rungs Order No.
	7	10	13	Pairs	Sets	4	7	10	13	Units		

Up to 5 m shaft depth without fall protection and with slide on hand grip Model 0901

1,80 - 2,08	1	-	-	2	-	-	-	-	-	-	-	9284 9900 07
2,64 - 2,92	-	1	-	3	-	-	-	-	-	-	-	9284 9900 10
3,48 - 3,76	-	-	1	3	-	-	-	-	-	-	-	9284 9900 13
3,76 - 4,04	2	-	-	4	-	-	-	-	-	-	-	9284 9900 14
4,04 - 4,88	1	1	-	4	-	-	-	-	-	-	-	9284 9900 17

As from 5 m shaft depth with fall protection and clip-on entry aid Model 0929.65.03

5,44 - 5,72	-	2	-	3	1	5,04	2	-	1	-	5	9284 9900 20
5,72 - 6,00	3	-	-	5	1	5,32	3	1	-	-	5	9284 9900 21
6,28 - 6,56	-	1	1	4	1	5,88	-	3	-	-	5	9284 9900 23
6,56 - 6,84	2	1	-	5	1	6,16	3	-	1	-	5	9284 9900 24
7,12 - 7,40	-	-	2	4	1	6,72	-	2	1	-	6	9284 9900 26
7,40 - 7,68	1	2	-	5	1	7,00	1	3	-	-	6	9284 9900 27
7,68 - 7,96	4	-	-	7	1	7,28	-	-	-	2	6	9284 9900 28
8,24 - 8,52	-	3	-	5	1	7,84	-	4	-	-	6	9284 9900 30
8,52 - 8,80	3	1	-	7	1	8,12	2	3	-	-	6	9284 9900 31
9,08 - 9,36	-	2	1	5	1	8,68	3	3	1	-	7	9284 9900 33
9,36 - 9,64	2	2	-	7	1	8,96	3	-	2	-	7	9284 9900 34
9,64 - 9,92	5	-	-	9	1	9,24	-	-	2	1	7	9284 9900 35

Rest platforms required every 10 m shaft depth! Please order separately – see accessories

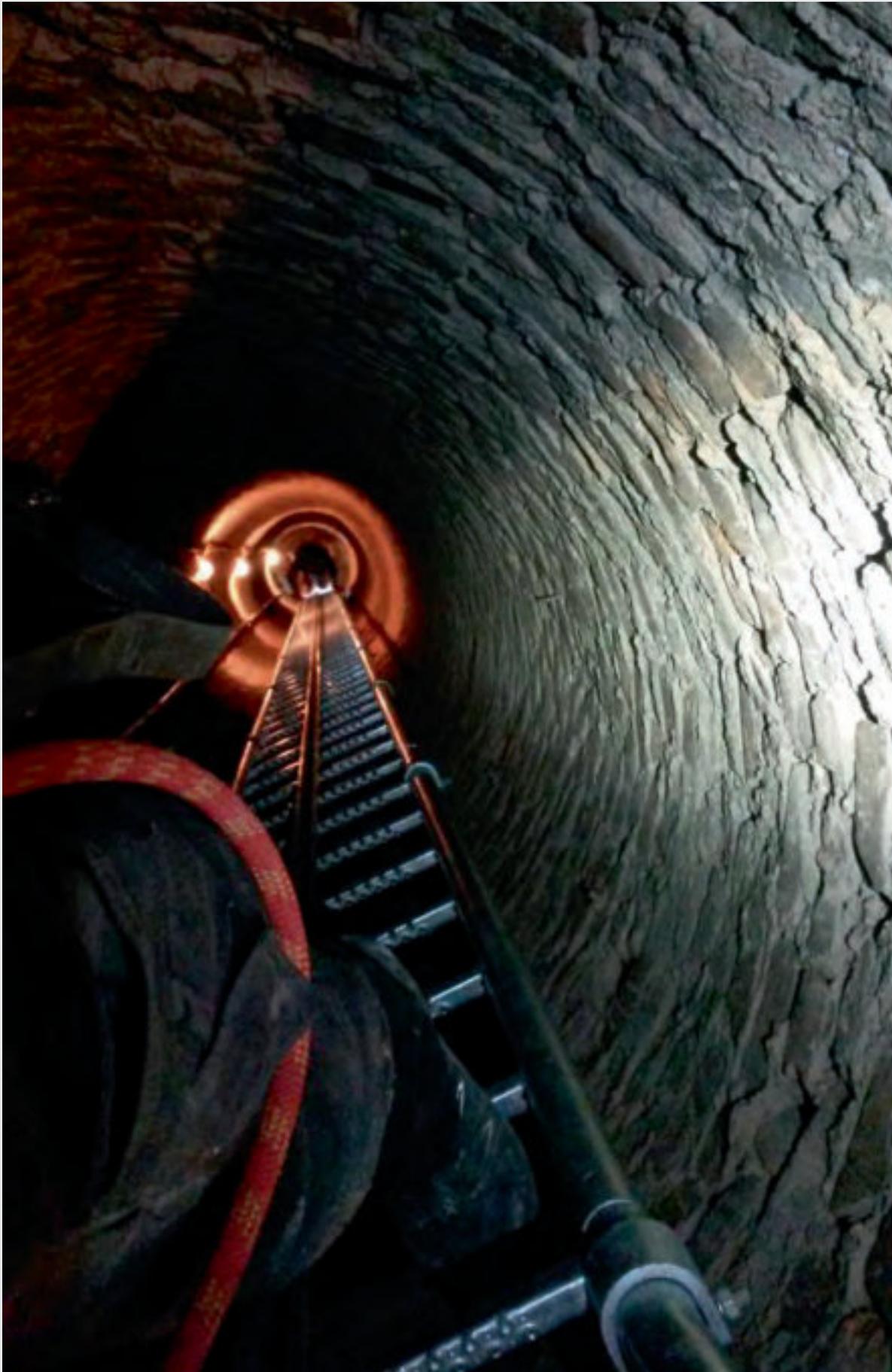
9,92 - 10,20	-	1	2	6	1	9,52	-	2	2	-	7	9284 9900 36
10,20 - 10,48	1	3	-	7	1	9,80	3	-	1	1	7	9284 9900 37
10,48 - 10,76	4	1	-	9	1	10,08	-	-	1	2	7	9284 9900 38
10,76 - 11,04	-	-	3	6	1	10,36	-	2	1	1	8	9284 9900 39
11,04 - 11,32	-	4	-	7	1	10,64	-	4	1	-	8	9284 9900 40
11,32 - 11,60	3	2	-	9	1	10,92	-	-	-	3	8	9284 9900 41
11,60 - 11,88	6	-	-	11	1	11,20	-	-	4	-	8	9284 9900 42
11,88 - 12,16	-	3	1	7	1	11,48	-	3	2	-	8	9284 9900 43
12,16 - 12,44	3	1	1	9	1	11,76	3	-	3	-	8	9284 9900 44
12,44 - 12,72	5	1	-	11	1	12,04	-	-	3	1	9	9284 9900 45
12,72 - 13,00	-	2	2	7	1	12,32	-	2	3	-	9	9284 9900 46
13,00 - 13,28	2	2	1	9	1	12,60	-	5	1	-	9	9284 9900 47
13,28 - 13,56	4	2	-	11	1	12,88	-	-	2	2	9	9284 9900 48
13,56 - 13,84	-	1	3	8	1	13,16	-	2	2	1	9	9284 9900 49
13,84 - 14,12	2	1	2	9	1	13,44	2	-	4	-	9	9284 9900 50
14,12 - 14,40	3	3	-	11	1	13,72	-	-	1	3	10	9284 9900 51
14,40 - 14,68	6	1	-	13	1	14,00	-	-	5	-	10	9284 9900 52
14,68 - 14,96	1	2	2	9	1	14,28	-	3	3	-	10	9284 9900 53
14,96 - 15,24	4	-	2	11	1	14,56	-	-	-	4	10	9284 9900 54
15,24 - 15,52	5	2	-	13	1	14,84	-	-	4	1	10	9284 9900 55
15,52 - 15,80	8	-	-	15	1	15,12	1	-	5	-	10	9284 9900 56
15,80 - 16,08	1	5	-	11	1	15,40	1	3	3	-	11	9284 9900 57
16,08 - 16,36	4	3	-	13	1	15,68	-	-	3	2	11	9284 9900 58
16,36 - 16,64	7	1	-	15	1	15,96	-	1	5	-	11	9284 9900 59
16,64 - 16,92	-	6	-	11	1	16,24	-	4	3	-	11	9284 9900 60

Ladders in accordance with DIN EN 14 396.

The following articles are also included within the scope of delivery for the fall protection system:

- 1 counter bracket for clip-on entry aid
- 1 end stop each
- 1 identification plate

Typ 0929.84.04
Typ 0529.40.06/0529.40.07
Typ 0176



Accessories brackets for ladder stiles \varnothing 48, distance to the wall 200 mm, for all grounds

For ladder stile \varnothing 48 mm Concrete surface Maximum fixing distance 1,96 m		Standard wall mount
Steel		0529 0610 00
V4A		0929 0610 00
Al		0629 0610 00
Distance between holes		0 mm
Insulation thickness		0 mm
Distance between middle of rail		200 mm
Drill hole \varnothing		16,5 mm
Tension strap to lowermost wall mount required		With fall arrest rail
Tension straps		
Steel	0529 4703 00	✓
V4A	0929 4703 00	✓

For ladder stile \varnothing 48 mm Concrete surface Maximum fixing distance 1,96 m		Centered wall mount
Steel		0529 1010 00
V4A		0929 1010 00
Al		0629 1010 00
Distance between holes		84 mm
Insulation thickness		0 mm
Distance between middle of rail		200 mm
Drill hole \varnothing		16,5 mm
Tension strap to lowermost wall mount required		ja
Steel LW 400	0529 2610 00	✓
Steel LW 500	0529 2710 00	✓
V4A LW 400	0929 2610 00	✓
V4A LW 500	0929 2710 00	✓
Al LW 400	0629 2610 00	✓
Al LW 500	0629 2710 00	✓



Standard wall mount



Centered wall mount



The wall mountings include clamping screws for mounting on the ladder stile.

When using the standard wall mountings 0529 0610 00, 0629 0610 00 or 0929 0610 00 in conjunction with fall protection, the ladder must be connected to the floor for static reasons using foot plates (page A.44).

Alternatively, the tension straps 0529 4703 00 or 0929 4703 00 can be used

When using the standard wall mountings 0529 0610 00, 0629 0610 00 or 0929 0610 00 in conjunction with fall protection, the ladder must be connected to the floor for static reasons using foot plates (page A.44).

Alternatively, a wall mounting 0529.2610, 0629.2610 or 0929.2610 can be mounted as the lowest bracket.

If ladder hooks are to be mounted, then also such a superior bracket must be mounted. Observe the possible combinations.

Accessories brackets for ladder stiles \varnothing 34, distance to the wall 200 mm, for all grounds

For ladder stile \varnothing 34 mm Maximum fixing distance 1,96 m	Standard wall mount		
Steel	0528 0410 00	0528 0710 00	0528 0610 00
V4A	–	0928 0710 00	0928 0610 00
Distance between holes	0 mm	0 mm	0 mm
Insulation thickness	0 mm	0 mm	0 mm
Distance between middle of rail	60 mm	100 mm	200 mm
Drill hole \varnothing	16,5 mm	16,5 mm	16,5 mm
Tension strap to lowermost wall mount required	–	–	With fall arrest rail
Dowels required	1	1	1
Tension straps			
Steel	0529 4703 00		
V4A	0929 4703 00		

For ladder stile \varnothing 34 mm Maximum fixing distance 1,96 m	Centered wall mount	
	 CW 366	 CW 400
Steel	0528 1010 00	0588 1010 00
V4A	0928 1010 00	
Distance between holes	84 mm	84 mm
Insulation thickness	0	0
Distance between middle of rail	200 mm	200 mm
Drill hole \varnothing	16,5 mm	16,5 mm
Tension strap to lowermost wall mount required	yes	yes
Dowels required	2	2
Steel LW 366	0528 2610 00	
V4A LW 366	0928 2610 00	
Steel LW 400	0588 2610 00	
Steel LW 500	0588 2710 00	



Standard wall mount

The wall mountings include clamping screws for mounting on the ladder stile.

When using the standard wall mountings 0528 0410 00, 0528 0710 00, 0928 0710 00, 0528 0610 00 or 0928 0610 00 in conjunction with fall protection, the ladder must be connected to the floor for static reasons using foot plates (page A.44).

Alternatively, the tension straps 0529 4703 00 or 0929 4703 00 can be used.

When using the central wall fixings 0528 1010 00, 0588 1010 00 and 0928 1010 00 the ladder must be connected to the floor by means of foot plates (page A.44) for static reasons.

Alternatively, a wall mounting 0588.2610, 0528.2610 or 0928.2610 can be mounted as the lowest bracket.

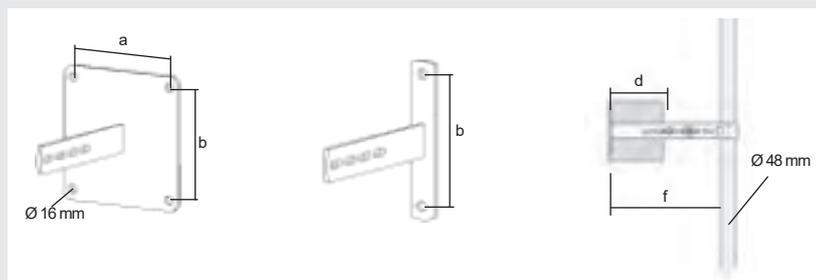
If ladder hooks are to be mounted, then also such a superior bracket must be mounted. Observe the possible combinations



Centered wall mount

Accessories brackets for masonry

for ladder stiles $\varnothing 48$ mm, distance to the wall 160 – 945 mm



Maximum fixing distance 1.96 m	Wall connection parts						
Steel	0529 4402 01	0529 4402 02	0529 4402 03		0529 4402 06	0529 4402 04	0529 4402 05
V4A	0929 4402 01	0929 4402 02	0929 4402 03		–	0929 4402 04	0929 4402 05
Distance between holes (a x b)	200 mm	200 mm	200 x 200 mm		200 x 200 mm	200 x 200 mm	200 x 200 mm
Insulation thickness (d)	0 mm	0 – 180 mm	0 – 180 mm	0 – 180 mm	0 – 250 mm	0 – 300 mm	0 – 500 mm
Adjustment range (f)	160 – 260 mm	270 – 400 mm	270 – 400 mm	400 – 500 mm	400 – 475 mm	570 – 745 mm	770 – 945 mm
Drill hole \varnothing	16 mm	16 mm	16 mm	16 mm	16 mm	16 mm	16 mm
Tensionstrap to lowermost Wall mount required	With fall arrest rail	With fall arrest rail	With fall arrest rail	> 400 mm for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard	With fall arrest rail
Dowels required	2	2	4	4	4	4	4
Ladder connection parts							
Steel	0529 4401 00	0529 4410 00	*	*	0529 4416 00	–	–
V4A	0929 4401 00	0929 4410 00	–	–	–	–	–
Steel	0529 4401 02	–	0529 4411 00	0529 4412 00	–	–	–
V4A	0929 4401 02	–	0929 4411 00	0929 4412 00	–	–	–
Steel	0529 4401 03	–	–	–	0529 4413 00	–	0529 4414 00 0529 4415 00
V4A	0929 4401 03	–	–	–	0929 4413 00	–	0929 4414 00 0929 4415 00
Steel	0529 4501 00	–	–	–	–	–	–
V4A	0929 4501 00	–	–	–	–	–	–
Tension strap							
Steel	0529 4704 00	0529 4705 00	0529 4706 00	–	–	–	–
V4A	0929 4704 00	0929 4705 00	0929 4706 00	–	–	–	–
Connection accessories kit (wall to ladder)							
Steel	0529 4303 00	–	–	–	–	–	–
V4A	0929 4303 00	–	–	–	–	–	–
Connection accessories kit (ladder to ladder)							
Steel	0529 4401 01	–	–	–	–	–	–
V4A	0929 4401 01	–	–	–	–	–	–

Fixing dowels see page A.65

* This combination is not available. If combined on site please order equipment pack in addition.

Accessories brackets for concrete surface for ladder stiles Ø 48 mm, distance to the wall 160 – 945 mm



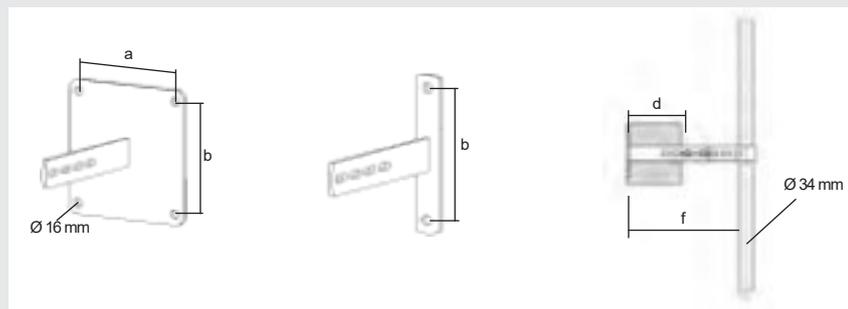
The structural stability of brackets, wall connection and ladder connection parts and tension straps with order number has been verified and the dowel extraction forces used to dimension the dowels can be found on the assembly instructions. The customer must have a structural calculation performed to determine the mounting forces to select dowels when any other combination of parts is used! Technical information is available on enquiry.

Maximum fixing distance 1.96 m	Wall connection parts						
Steel	0529 4402 00	0529 4402 10	0529 4402 11	0529 4402 14	0529 4402 12	0529 4402 13	
V4A	0929 4402 00	0929 4402 10	0929 4402 11	-	0929 4402 12	0929 4402 13	
Al	-	-	-		-	-	
Distance between holes (a x b)	110 mm	110 mm	110 x 110 mm		100 x 100 mm	110 x 110 mm	110 x 110 mm
Insulation thickness (d)	0 mm	0 – 180 mm	0 – 180 mm	0 – 180 mm	0 – 250 mm	0 – 300 mm	0 – 500 mm
Adjustment range (f)	160 – 260 mm	270 – 400 mm	270 – 400 mm	400 – 500 mm	400 – 475 mm	570 – 745 mm	770 – 945 mm
Drill hole Ø	16 mm	16 mm	16 mm	16 mm	16 mm	16 mm	16 mm
Tensionstrap to lowermost Wall mount required	With fall arrest rail	With fall arrest rail	With fall arrest rail	> 400 mm for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard	With fall arrest rail
Dowels required	2	2	4	4		4	4
Ladder connection parts							
Steel	0529 4401 00	0529 4400 00	-	-	0529 4425 00	-	-
V4A	0929 4401 00	0929 4400 00	-	-	-	-	-
Steel	0529 4401 02	-	0529 4420 00	0529 4421 00	-	-	-
V4A	0929 4401 02	-	0929 4420 00	0929 4421 00	-	-	-
Steel	0529 4401 03	-	-	0529 4422 00	-	0529 4423 00	0529 4424 00
V4A	0929 4401 03	-	-	0929 4422 00	-	0929 4423 00	0929 4424 00
Steel	0529 4501 00	-	-	-	-	-	-
V4A	0929 4501 00	-	-	-	-	-	-
Tension strap							
Steel	0529 4704 00	0529 4703 00	0529 4702 00	-	-	-	-
V4A	0929 4704 00	0929 4703 00	0929 4702 00	-	-	-	-
Connection accessories kit (wall to ladder)							
Steel	0529 4303 00	-	-	-	-	-	-
V4A	0929 4303 00	-	-	-	-	-	-
Connection accessories kit (ladder to ladder)							
Steel	0529 4401 01	-	-	-	-	-	-
V4A	0929 4401 01	-	-	-	-	-	-

Fixing dowels see page A.65

Accessories brackets for masonry

for ladder stiles \varnothing 34 mm, distance to the wall 100 – 945 mm



Maximum fixing distance 1.96 m	Wall connection parts						
Steel	0528 4202 00	0529 4402 01	0529 4402 02	0529 4402 03	0529 4402 04	0529 4402 05	
V4A	0928 4202 00	0929 4402 01	0929 4402 02	0929 4402 03	0929 4402 04	0929 4402 05	
Distance between holes (a x b)	0	200 mm	200 mm	200 x 200 mm		200 x 200 mm	200 x 200 mm
Insulation thickness (d)	0	0	0 – 180 mm	0 – 180 mm	0 – 300 mm	0 – 500 mm	0 – 500 mm
Adjustment range (f)	100 – 150 mm	160 – 260 mm	270 – 400 mm	270 – 400 mm	400 – 500 mm	570 – 745 mm	770 – 945 mm
Drill hole \varnothing	16,5 mm	16 mm	16 mm	16 mm	16 mm	16 mm	16 mm
Tensionstrap to lowermost Wall mount required	With fall arrest rail	With fall arrest rail	With fall arrest rail	With fall arrest rail	> 400 mm for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard
Dowels required	1	2	2	4	4	4	4
Ladder connection parts							
Steel	0528 4201 00	0528 4200 00	-	-	-	-	-
V4A	0928 4201 00	0928 4200 00	-	-	-	-	-
Steel	0528 4401 00	-	0528 4410 00	-	-	-	-
V4A	0928 4401 00	-	0928 4410 00	-	-	-	-
Steel	0528 4401 02	-	-	0528 4411 00	0528 4412 00	-	-
V4A	0928 4401 02	-	-	0928 4411 00	0928 4412 00	-	-
Steel	0528 4401 03	-	-	-	0528 4413 00	0528 4414 00	0528 4415 00
V4A	0928 4401 03	-	-	-	0928 4413 00	0928 4414 00	0928 4415 00
Tension strap							
Steel	0529 4704 00	-	0529 4705 00	0529 4706 00	-	-	-
V4A	0929 4704 00	-	0929 4705 00	0929 4706 00	-	-	-
Connection accessories kit (wall to ladder)							
Steel	0529 4303 00	-	-	-	-	-	-
V4A	0929 4303 00	-	-	-	-	-	-
Connection accessories kit (ladder to ladder)							
Steel	0528 4201 01	-	-	-	-	-	-
V4A	0928 4201 01	-	-	-	-	-	-

Fixing dowels see page A.65

Accessories brackets for concrete surface

for ladder stiles Ø 34 mm, distance to the wall 100 – 945 mm

 The structural stability of brackets, wall connection and ladder connection parts and tension straps with order number has been verified and the dowel extraction forces used to dimension the dowels can be found on the assembly instructions. The customer must have a structural calculation performed to determine the mounting forces to select dowels when any other combination of parts is used! Technical information is available on enquiry.

Maximum fixing distance 1.96 m	Wall connection parts						
Steel	0528 4202 00	0529 4402 00	0529 4402 10	0529 4402 11	0529 4402 12	0529 4402 13	
V4A	0928 4202 00	0929 4402 00	0929 4402 10	0929 4402 11	0929 4402 12	0929 4402 13	
Distance between holes (a x b)	0	110 mm	110 mm	110 x 110 mm	110 x 110 mm	110 x 110 mm	
Insulation thickness (d)	0	0	0 – 180 mm	0 – 180 mm	0 – 300 mm	0 – 500 mm	
Adjustment range (f)	100 – 150 mm	160 – 260 mm	270 – 400 mm	270 – 400 mm	400 – 500 mm	570 – 745 mm	
Drill hole Ø	16,5 mm	16 mm	16 mm	16 mm	16 mm	16 mm	
Tension strap to lowermost Wall mount required	With fall arrest rail	> 400 mm for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard	for fall arrest rails and rear safety guard			
Dowels required	1	2	2	4	4	4	
Ladder connection parts							
Steel	0528 4201 00	0528 4200 00	-	-	-	-	
V4A	0928 4201 00	0928 4200 00	-	-	-	-	
Steel	0528 4401 00	-	0528 4400 00	-	-	-	
V4A	0928 4401 00	-	0928 4400 00	-	-	-	
Steel	0528 4401 02	-	-	0528 4421 00	0528 4422 00	-	
V4A	0928 4401 02	-	-	0928 4421 00	0928 4422 00	-	
Steel	0528 4401 03	-	-	-	0528 4423 00	0528 4424 00	0528 4425 00
V4A	0928 4401 03	-	-	-	0928 4423 00	0928 4424 00	0928 4425 00
Tension strap							
Steel	0529 4704 00	-	0529 4703 00	0529 4702 00	-	-	
V4A	0929 4704 00	-	0929 4703 00	0929 4702 00	-	-	
Connection accessories kit (wall to ladder)							
Steel	0529 4303 00	-	-	-	-	-	
V4A	0929 4303 00	-	-	-	-	-	
Connection accessories kit (ladder to ladder)							
Steel	0528 4201 01	-	-	-	-	-	
V4A	0928 4201 01	-	-	-	-	-	

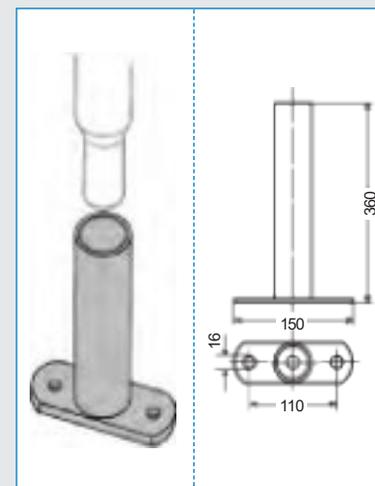
Fixing dowels see page A.65

ACCESSORIES for two stile ladders

Base plates

For additional anchoring of the ladder to the ground. Necessary in the case of two rail ladders with fall protection and when using extra long wall mounts with a distance of at least 400 mm or more distance to the building with wall mounting brackets. If it is not possible for the ladder to extend to the ground, tension straps may be used in place of base plates.

For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 1610 00
5284/85/88/89	Steel, hot-dip galv.	34	0528 1610 00
9290/94	V4A stainless steel	48	0929 1610 00
9284/89	V4A stainless steel	34	0928 1610 00
6290	Anodised Aluminium	48	0629 1610 00



Base plates for shortened ladders/ adapters

When shortening ladders and adapters this base plate can be used, which does not require the retracted ladder and, as it will be attached to the ladder stile.

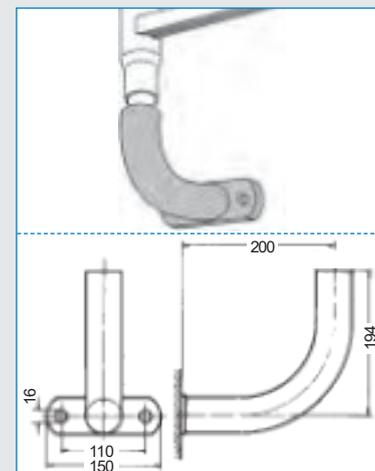
For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 1620 00



Connecting bracket

For mounting the bottom ends of ladders or straight rail extensions **Model 0529.04.30** to the wall.

For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 1110 00
9290/94	Steel, hot-dip galv.	48	0529 1110 00
6290	Steel, hot-dip galv.	48	0529 1110 00
5285/5288	Steel, hot-dip galv.	34	0528 1110 00

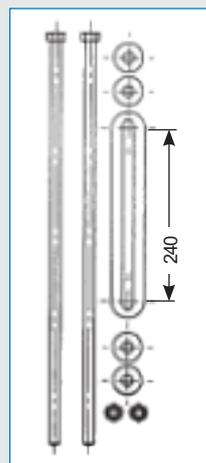


Stainless steel anchor bolts DGBM

An alternative to dowel fixing where the fixing surface is poor.

Consists of 2 bolts, 1 mounting bracket with slotted hole, 4 washers, 2 nuts. All parts V4A stainless steel, stained.

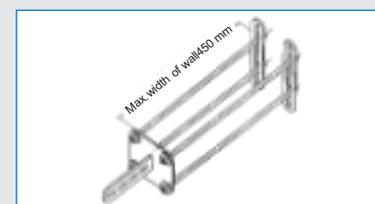
See wall brackets for two rail ladders starting page A.38; wall brackets for single rail ladders starting page B.04



1 set anchor bolts



1 set of anchor bolts is required for 1 wall connection element



2 sets of anchor bolts are required for 1 wall connection element

Order No.
0529 5109 01

ACCESSORIES for two stile ladders

Durchsteckanker aus Edelstahl

- »» For concrete C 20 / 25
- »» Approved for uncracked and cracked concrete
- »» Approved by building authorities/according to building legislation
- »» Tested structurally and according to employer liability insurance law in conjunction with our ladders and our fall protection
- »» No special tools are required when moving
- »» Push through mounting
- »» Drill hole diameter = dowel diameter
- »» Load can be applied immediately



Stud anchors

for indoor/outdoor use and in rooms subject to moisture

All parts made of V4A stainless steel.
M 12. With washer Ø 35 x Ø 13 x 4 mm.

Order No.
0529 5109 10

Stud anchors

for indoor use

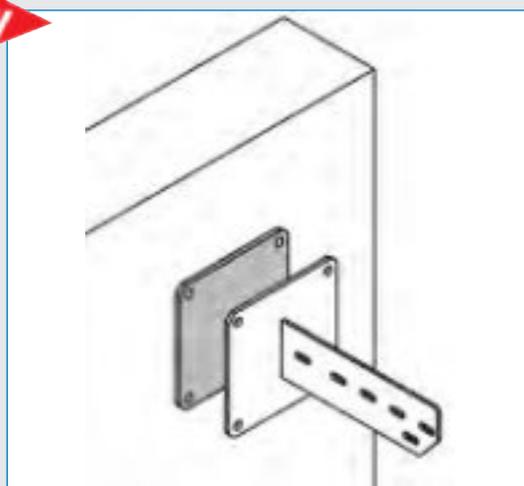
All parts made of steel, hot-dip galvanised.
M 12. With washer Ø 35 x Ø 13 x 4 mm.

Order No.
0529 5105 10

Material	Dowel length approx. mm	Dowel effective length max. mm	Drill hole depth min. mm	Min. building thickness of the fixing surface mm	Drill bit nominal Ø mm	Order No.
Edelstahl	115	20	95	140	12	0529 5109 10
Stahl, galv. verz.	115	20	95	140	12	0529 5105 10

Wall insulation for wall bracket

- »» The wall insulation is fixed as a thermal separation element between the wall bracket and the load-bearing substrate by means of a simple push-through installation
- »» To avoid cold bridges in the case of thermal insulation on the building
- »» For wall bracket with 4-hole mounting



Order No.
0529 4404 00

We provide the requisite mounting forces for fixing components to surfaces other than concrete in the assembly instructions. In such cases please contact a specialist supplier of fixing dowels to ensure that the correct dowel is selected.

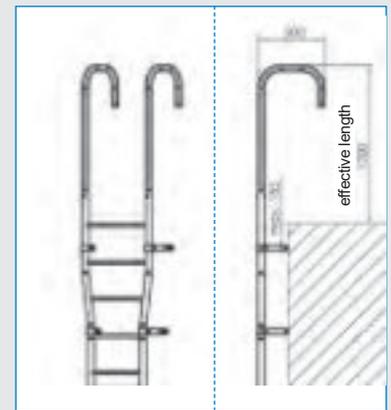


ACCESSORIES for two stile ladders

Ladder hook with short arms

Note safety barriers – see Page A.48.

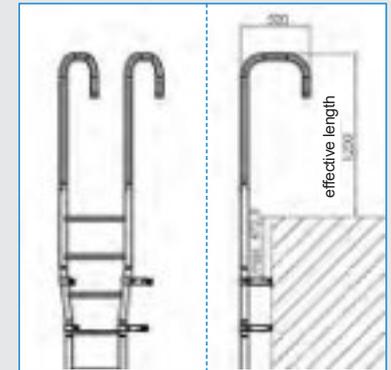
For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 1450 00
5284/89	Steel, hot-dip galv.	34	0528 1450 00
9290/94	V4A stainless steel	48	0929 1450 00
9284/89	V4A stainless steel	34	0928 1450 00
6290	Anodised aluminium	48	0629 1450 00



Ladder hook with elongated short arms

Note safety barriers – see Page A.48.

For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 1452 00
9290/94	V4A stainless steel	48	0929 1452 00



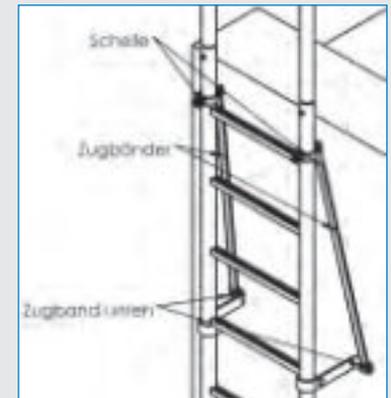
 For ladder hooks type 0528.04.50, 0528.14.50, 0928.14.50, 0629.04.50 and 0629.14.50 an additional pair of wall mounts has to be assembled.

Tension strap

With the tension straps it is possible to attach the upper attachment of the ladder up to 1 m below the upper edge of the structure.

Consisting of 2 pcs. tension strap incl. fixing material.

For ladder model	Material	stile Ø	Order No.
5290	Steel, hot-dip galv.	48,3	0529 4701 11



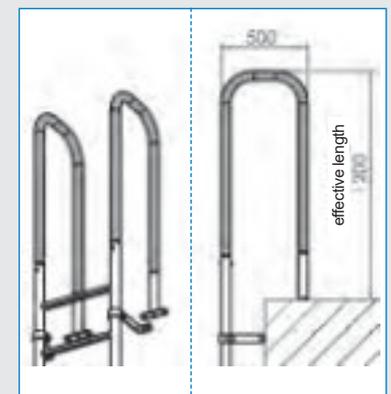
 Tension strap 0529 4701 11 can only be used with a wall distance of 200 mm.

Ladder hook with long arms

The bottom ends are retracted which means that mounting to the roof is possible using base plates **Model 0529.16.10** – see Page A.44.

Note platform **Model 0529.23.10** – see Page A.47.

For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 0350 00
9290/94	V4A stainless steel	48	0929 0350 00

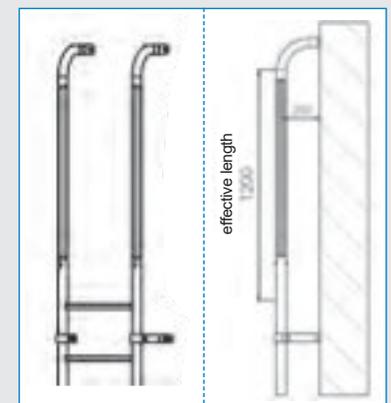


Rail extension – straight

The top ends are retracted which means that mounting to the wall is possible using connecting bracket **Model 0529.11** – see Page A.44.

Note platform **Model 0529.23.10** – see Page A.47.

For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 0450 00
5289	Steel, hot-dip galv.	34	0528 0450 00
6290	Anodised aluminium	48	0629 0450 00



ACCESSORIES for two stile ladders

Crossing element

Walking surface made of grating. Baseplates **Model 0529.16.10** for crossing elements see Page A.56. In order to compensate for dimensional differences, additionally order adjustable wall mounts **Model 0529.44**.

For other dimensions see the crossing element set.

Crossing size approx. 740 mm.

For ladders with a clear width of 502 mm

For ladder model	Material	Order No.
5290/94 6290	Steel, hot-dip galv.	0529 2403 00

Foot railings for crossing elements as a retrofit kit



for crossing element	Material	Order No.
0529 2403 00 0529 2422 11-13	Steel, hot-dip galv.	0529 2400 30
0529 2422 14-16	Steel, hot-dip galv.	0529 2400 40

Crossing element set

made of steel, hot-dip galvanised. The set consists of tubes, tube connectors, grating, mounting rails for grating and the requisite connecting screws. For assembly by the customer.

Please also order base plates **Model 0529.16.10** for the crossing element parts – see Page A.44.

For crossing size of approx. 810 to 1560 mm.

For ladders with a clear width of 502 mm

For ladder model	for b (approx. mm) from to	B approx. mm	Order No.
5290 6290	310 – 460	810	0529 2422 11
	461 – 610	960	0529 2422 12
	611 – 760	1110	0529 2422 13
	761 – 910	1260	0529 2422 14
	911 – 1060	1410	0529 2422 15
	1061 – 1210	1560	0529 2422 16

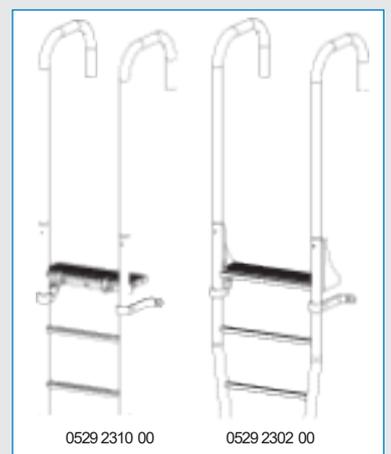
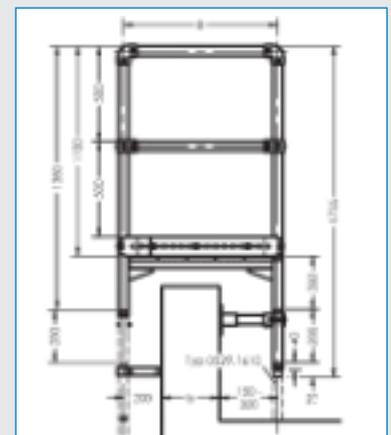
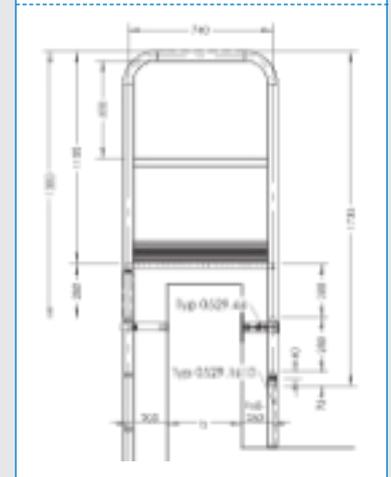
Platform **DIN 14094** and **DIN 18799**

Made of perforated metal plate. To be attached to the top rung. Enlarges the top rung to give a comfortable standing area of approx. 150 x 500 mm. Prevents slipping into the gap between ladder and wall when crossing. Stipulated in EN ISO 14122-4. Also recommended with a solo rear safety guard.

For ladder model	Material	Order No.
5290/94	Steel, hot-dip galv.	0529 2310 00
5284/85/88/89	Steel, hot-dip galv.	0529 2310 00
9288/94	V4A stainless steel	0929 2310 00
9284/89	V4A stainless steel	0929 2310 00
6290	Steel, hot-dip galv.	0529 2316 00
	V4A stainless steel	0929 2316 00

Platform **DIN ISO 14122-4**, **DIN 14094** and **DIN 18799**

For ladder model	Material	Order No.
5290/94	Steel, hot-dip galv.	0529 2302 00
5285/88	Steel, hot-dip galv.	0529 2302 00

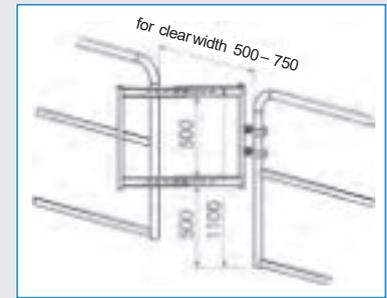


ACCESSORIES for two stile ladders

Small door according to DIN EN ISO 14122

To block the access opening on protective railings. Closes automatically. To connect to e.g. railing posts or ladder hooks made of tubular steel, Ø 34 mm or 48 mm. May be mounted on right or left side. Appropriate for clear width 500 – 750 mm.

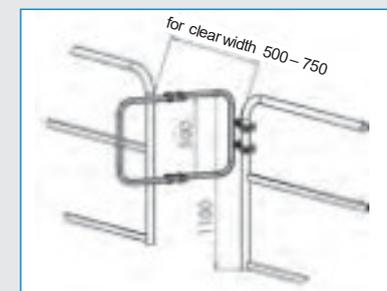
For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 8305 00
5285/88	Steel, hot-dip galv.	34	0528 8305 00
9290/94	V4A stainless steel	48	0929 8305 00



Small door according to DIN 18799 and DIN 14094

To block the access opening on protective railings. Closes automatically. To connect railing posts or ladder hooks made of tubular steel, Ø 34 or 48 mm. May be mounted on right or left. Appropriate for clear width 500 - 700 mm.

For ladder model	Material	stile Ø	Order No.
5290/94	Steel, hot-dip galv.	48	0529 8311 00
5285/88	Steel, hot-dip galv.	34	0528 8311 00
9290/94	V4A stainless steel	48	0928 8311 00



Conversion kit for connection

of the safety barrier to the left stile for Model **0529 1300 00** and **0529 1310 00**. Conversion kit for other doorhangs on enquiry.

Hinge left	Order No.
	0529 1304 00

Clamping protection

For small doors according to DIN EN ISO 14122 to be screwed to the small door by the customer. No drilling required.

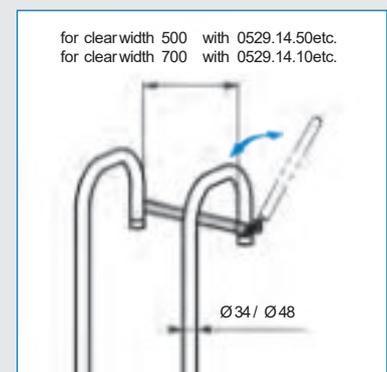
Order No.
0529 8305 02



Safety barriers

To block entry to the top of the ladder. For connection to one rail. Closes automatically. With red plastic coating. Also suitable for securing the entry to railings.

For ladder model	Material	stile Ø	Length approx. cm	Order No.
0529.1450/.1452/.0350 0929.1450/.1452/.0350 0629.1450	Steel, hot-dip galv.	48	53,5	0529 1300 00
0529.1410	Steel, hot-dip galv.	48	88,5	0529 1310 00
0528.1450	Steel, hot-dip galv.	34	54,0	0528 1300 00



Accessories for two stile ladders

Accessories Connection to lateral exit, top

In the case of a lateral exit, the safety cage must be attached to the platform railing.

Set consisting of 2 x telescopic connectors and fixing material.

For platform railing Ø	Material	Holm-Ø	Order No.
48 mm	Steel, hot-dip galv.	48	0529 2800 20



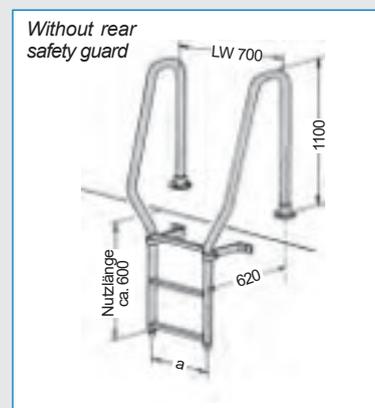
Exit elements

A complete exit element can be mounted in the place of ladder hooks. This makes it easy to climb through the wide clear distance between the rails which also tilt backwards at an angle.

Includes a pair of wall mounts and two base plates. Note access controls (barriers, small gates).

Exit element without safety cage

For ladder model	Rail distance »a« approx. mm	Material	Rail Ø	Order No.
5290/94	450	Steel, hot-dip galv.	48	0529 1410 00
5285/5288	434	Steel, hot-dip galv.	34	0528 1410 00



Large rear safety guard for exit element with safety cage

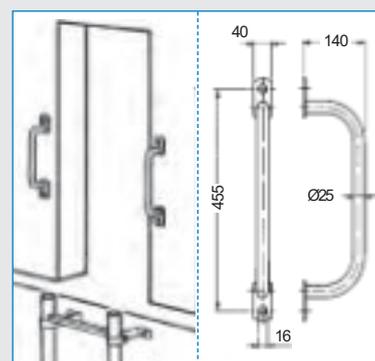
If you wish to assemble the safety cage yourself, order the following in addition to the complete set of ladders with safety cage **Model 5291, 5291.01** or to the individual safety cage elements:

Material	Rail distance »a« approx. mm	Holm-Ø	Order No.
Steel, hot-dip galv.	450	48	0529 0100 12
Steel, hot-dip galv.	434	34	0528 0100 12

Hand grips

for mounting to building structure. Made of tubular steel, Ø 25 mm. We recommend assembling in pairs.

Material	Order No.
Steel, hot-dip galv.	0529 8200 00
V4A stainless steel	0929 8200 00



ACCESSORIES for two stile ladders

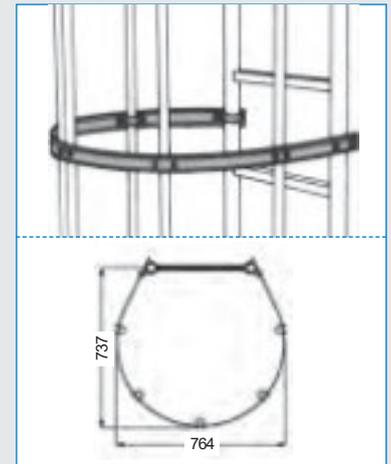
Rear safety guard

For safety cages. Made of special profile 50 x 2 mm.

Includes straps and screws for connecting safety cage and rail joints.

Rear safety guard distance in accordance with DIN and Accident Prevention Regulations (UVV) ≤ 1.50 m.

For ladder model	Material	Order No.
5290/94	Steel, hot-dip galvanised	0529 0105 00
5284/85/88/89	Steel, hot-dip galvanised	0528 0105 00
9290/94	V4A stainless steel	0929 0105 00
9284/89	V4A stainless steel	0928 0105 00
6290	Anodised aluminium	0629 0105 00

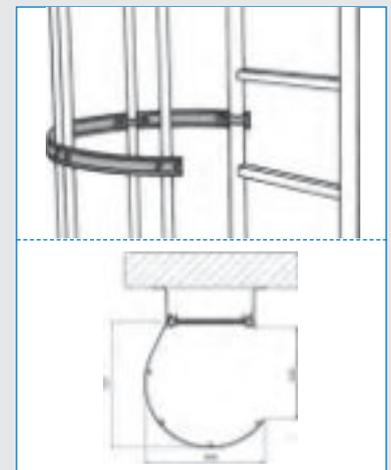


3/4 rear safety guard

For exiting the rear safety guard from the side (left or right). Leave the safety cage connecting tube open approx. 2.20 m and place a rear safety guard at the exit height and a further one 2.20 m above this.

Mount the 3/4 rear safety guard between them.

For ladder model	Material	Order No.
5290/94	Steel, hot-dip galvanised	0529 0106 00
5284/85/88/89	Steel, hot-dip galvanised	0528 0106 00
9290/94	V4A stainless steel	0929 0106 00
9284/89	V4A stainless steel	0928 0106 00
6290	Anodised aluminium	0629 0106 00

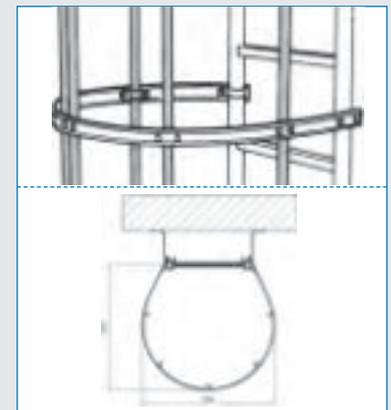


Safety guard connections – 5-fold

For safety cages. Made of tube, Ø 25 mm.

Includes drain plugs and butt connectors. Supplied in lengths with 0.5 m increments.

For ladder model	Material	Order No.
5290/94	Steel, hot-dip galvanised	0529 0200 00
5284/89	Steel, hot-dip galvanised	0529 0200 00
9290/94	V4A stainless steel	0929 0200 00
9284/89	V4A stainless steel	0929 0200 00
6290	Anodised aluminium	0629 0200 00



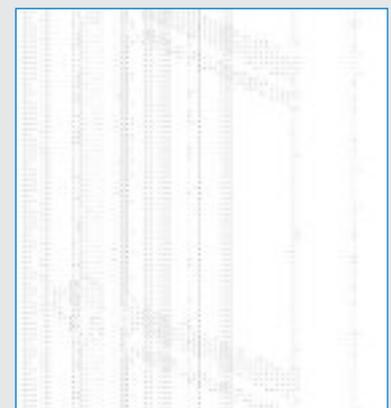
* In case of order please indicate the required length.

Please consider that rear safety tubes have to be installed with off-set.

Reinforcement set for aluminium rear protection

For aluminium rear protection, a bracing set must be fitted to the lowest backguard. Mounting is carried out on the safety guard using the existing bracket screws and on the ladder stile using clamping clips.

For ladder model	Material	Order No.
6290	Aluminium	0629 0300 00



ACCESSORIES for two stile ladders

Transfer platforms according to **DIN EN 14094**, **DIN 14122** and **DIN 18799**

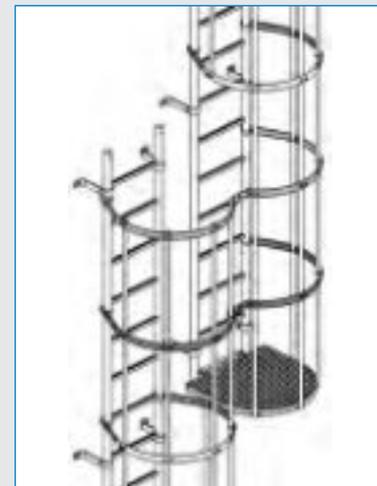
For ladders with several sections and safety cage.

The scope of delivery contains the following:

- 1 platform grating
- 2 3/4 rear safety guards
- 4 connecting straps with fixing screws

For ladder model	Material	Order No.
5290/94	Steel, hot-dip galv.	0529 2003 02
5284/85/88/89	Steel, hot-dip galv.	0528 2003 02
9290/94	V4A stainless steel	0929 2003 02
9284/89	V4A stainless steel	0928 2003 02
6290	Aluminium ¹⁾	0629 2003 02

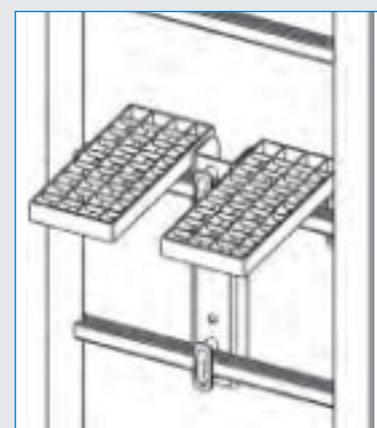
¹⁾ Platform grating made of steel, hot-dip galvanised



Folding rest platform DBGM, reconstructed

For ladders with and without fall protection. Consisting of 2 areas for standing measuring approx. 130 x 300 mm each which can be folded in or out easily and individually by foot. In accordance with accident prevention regulations the raised position provides sufficient room for feet.

For ladder model	Material	Order No.
5290/94 5284/89 5285/88	Steel, hot-dip galv.	0529 1913 00
9290/94 9284/89	V4A stainless steel	0929 1913 00



Folding rest seat

For reasons of stability can be mounted where there are at least 4 rear safety guards. Size 150 x 880 mm.

For all ladder models	Material	Order No.
with safety cage	Steel, hot-dip galv.	0529 1201 00



Model 0529.12.01

Distances between rest platforms in line with the application areas and associated rules and regulations (standards), see A.02.

Pivotable rest platform

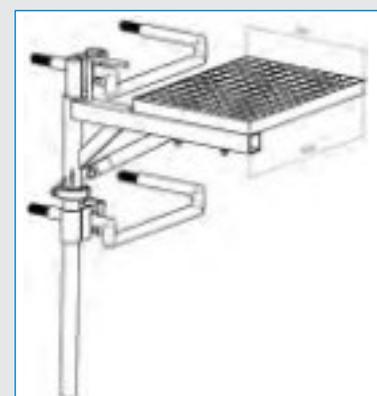
Is swivelled in or out by hand or by foot.

Latches in rest and use positions and can be mounted on the left or right.

For rung cross sections of up to \square 30 x 30 mm or \varnothing 16 – 30 mm and rung distances of 250 – 333 mm.

For step irons \varnothing 16 – 30 mm and distance between step irons of 250 – 333 mm.

	Material	Order No.
For two rail ladders and manhole steps	Steel, hot-dip galv.	0529 1901 00



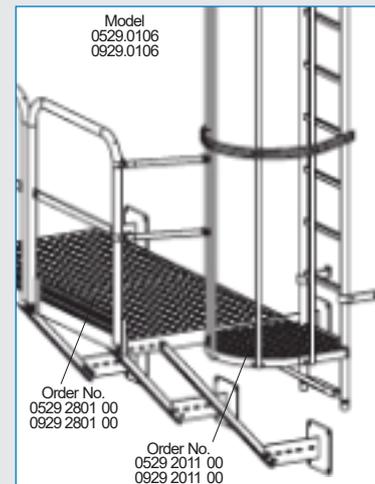
ACCESSORIES for two stile ladders

Platform gratings

Lower end of a ladder with safety cage which for safety reasons or reasons connected with structural circumstances cannot be installed right down to the ground.

An escape route consisting of platforms may be connected to the side. In this case use a 3/4 rear safety guard instead of a normal rear safety guard – see page A.50.

For ladder model	Material	Order No.
5290/94 5284/85/88/89	Steel, hot-dip galv.	0529 2011 00
9290/94 9284/89	V4A stainless steel	0929 2011 00
6290	Steel, hot-dip galv.	0529 2011 00
	V4A stainless steel	0929 2011 00

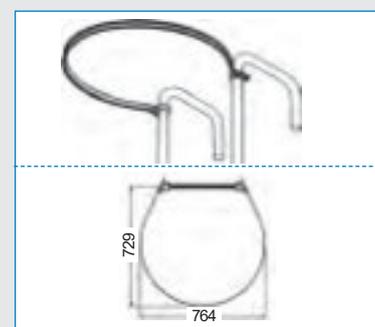


Single rear safety guard

Especially stable. For use as a single bracket at the top end of ladders without safety cage that have a drop of up to 5 m, such as ladders on house chimneys.

Note platform **Model 0529.23/0528.23**.

For ladder model	Material	Order No.
5290/94	Steel, hot-dip galv.	0529 1500 00
5289	Steel, hot-dip galv.	0528 1500 00



Locking plates for hooking into place

Are simply hooked over a rung and secured using a chain wrapped round a rung and brass padlock. Includes identification plate **Model 0117.05.06**.

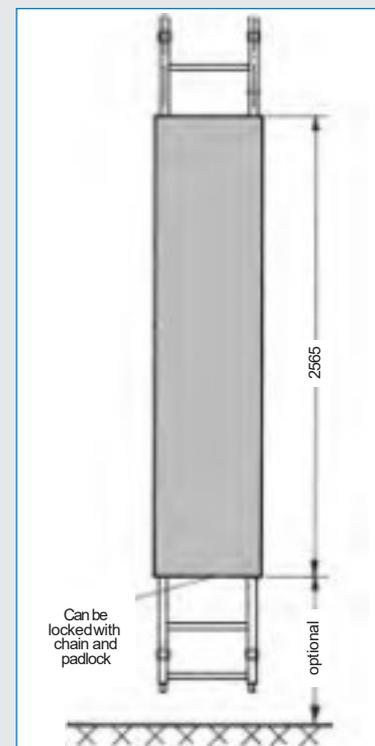
Effective length approx. 2.56 m.

For ladder model	Material	Order No.
5288/90/92/92.01/94	Anodised aluminium	0529 5704 00
5282/89	Anodised aluminium	0643 5400 00
9290/92/94	Anodised aluminium	0529 5704 00
9282/89	Anodised aluminium	0643 5400 00
6290	Anodised aluminium	0529 5704 00

Hand grips for locking plate (2 units)

Simplifies mounting and removal of the locking plate. For retrofitting by the customer.

Order No.
0643 5410 00



Locking plates can be retrofitted to existing ladders. Prerequisite: clear width of 345 – 402 mm.

ACCESSORIES for two stile ladders

Ladder guard according to **DIN 14094**, **DIN 18799**, **DIN EN ISO 14122 Teil 4**, with opening mechanism

To prevent unauthorised climbing and to separate hazardous areas in accordance with Directive 89/391 EEC. For ladders with and without fall protection or safety cage. With metal sheeting on the side that extends right to the building the ladder guard offers very effective protection against unauthorised climbing. For attaching to the ladder **(no drilling on the building is required)**.

Excellent resistance to buckling due to stable angle steel frame construction. Opened and closed using a sash lock. Includes identification plate Model 0117.05.06. Assembly by the customer. Anodised aluminium metal sheet.

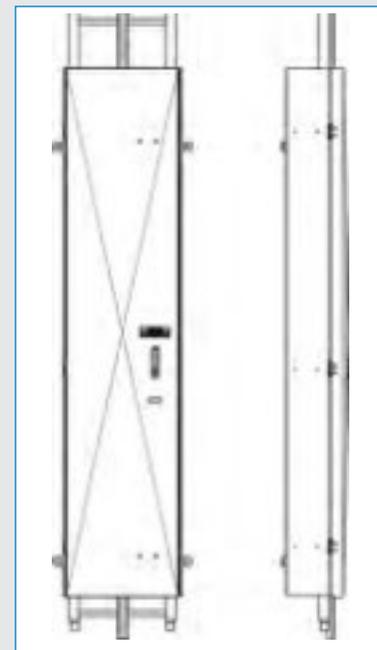
Effective length approx. 2.50 m.

It is possible to mount 2 ladder guards on top of each other.

For ladder model	Material	Order No.
5290/94, 9290/94, 6290	Aluminium/Steel, hot-dip galv.	0529 5705 00
Same design opens to the right	Aluminium/Steel, hot-dip galv.	0529 5705 10



Existing HACA ladders can be retrofitted with ladder guards. Prerequisite: ladder rails Ø48 mm, dimension between rails 450 mm, distance to building 200 mm from the centre of the rail to the structure. In the case of emergency ladders it is necessary that the ladder guard can also be opened from above.

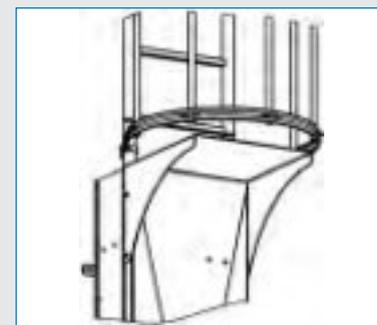


Accessories for ladder guard

anti-transit device / three edged lock

As alternative lock for the ladder guard type 0529.5705.00 for simplification of access, e.g. for rescuers. Anti-transit device for ladders with rear safety according to **DIN 14094** and **DIN EN ISO 14122**.

	Order No.
anti-transit device	0529 5705 05
three edged lock	0529 5705 02

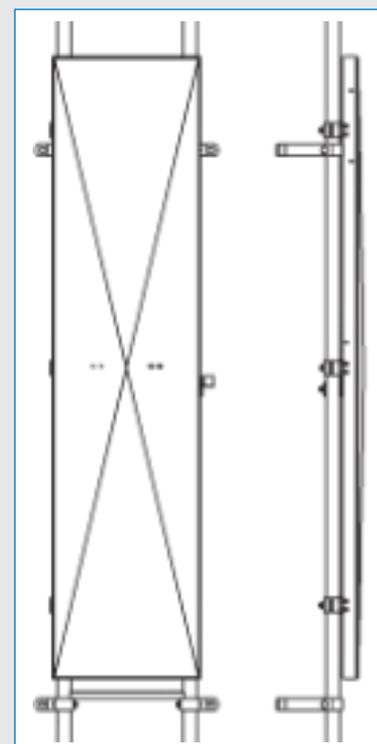


Ladder guard according to **DIN 18799**

- »» Useful length 2.20 m to secure against unauthorised climbing
- »» Lockable with a padlock
- »» To connect to the ladders
- »» Version with side plates available on request



For ladder model	Material	Order No.
5290/94, 9290/94, 6290	Aluminium/Steel, hot-dip galv.	0529 5705 20



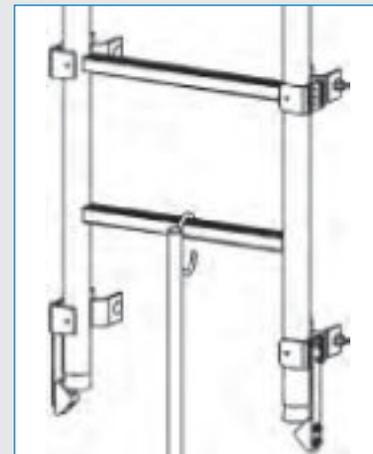
ACCESSORIES for two stile ladders

Retractable ladders

To protect against unauthorised use of the ladder.

With the aid of the tension rod supplied the ladder can be pulled down from ground level or slid vertically downwards onto the fixed ladder installation with the base facing down. For this reason it is also suitable for emergency ladders. Hot-dip galvanised steel fixing elements for connection. Effective length: for fixed two rail ladders with safety cage approx. 2.80 m, without safety cage approx. 3.08 m.

For ladder model	Material	Order No.
5290/94	Aluminium/steel	0529 0903 00
5284/89	Aluminium/steel	0528 0903 00
9290/94	Aluminium/steel	0529 0903 00
9284/89	Aluminium/steel	0528 0903 00
6290	Aluminium/steel	0529 0903 00



Climbing guard

Made of steel, hot-dip galvanised, prevents unauthorised access, consists of

Model 0529.12.01, folding rest seat

Model 0529.12.02 locking device (chain and padlock)

Model 0529.12.05 2. locking element

For all ladder models	Material	Order No.
with safety cage	Steel, hot-dip galv.	0529 1210 00



Model 0529.12.10

2nd Locking element

Size 150 x 880 mm

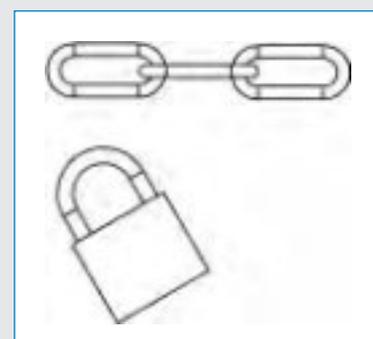
For all ladder models	Material	Order No.
with safety cage	Steel, hot-dip galv.	0529 1205 00



Model 0529.12.05

Lock for rest seat and climbing guard

Material	Order No.
Hot-dip galvanised chain and brass padlock	0529 1202 00



Exit guard rail for attaching to straight lengthening stiles

- »»According to the standards DIN EN 14122-4, DIN 18799-1, DIN 14094-1
- »»one-sided rail set for a safe step off the ladder
- »»suitable for flat roofs of up to 10° inclination, not for trapezoidal profiles
- »»Weather and corrosion resistant
- »»height of the railing 1,20 m, length of the bracket 1.91 m
- »»Quick and easy assembly, no drilling, attachment or penetration of the roof membrane.
No upstand or parapet-wall required
- »»totally compatible with all components of the HACA system with pipes Ø 48
- »»For assembly to the straight lengthening stiles (not part of the scope of delivery, order no. 0529 0450 00)
- »»Suitable for different measures of atticas as the rail pipes can be shortened on site, height up to 300 mm, width up to 700 mm
- »»balancing weights made of recycled PVC
- »»can be adopted flexibly to all conditions on site
- »»No support to or fixation of the rail from the building wall necessary
- »»Accessories for 1 set
Set of washer mats one sided for 4 balancing weights and 2 leg supports
Available for protection of the roof:
for roofs with foil surface: fibours web set
for roofs with bitumen surface: elastomer set

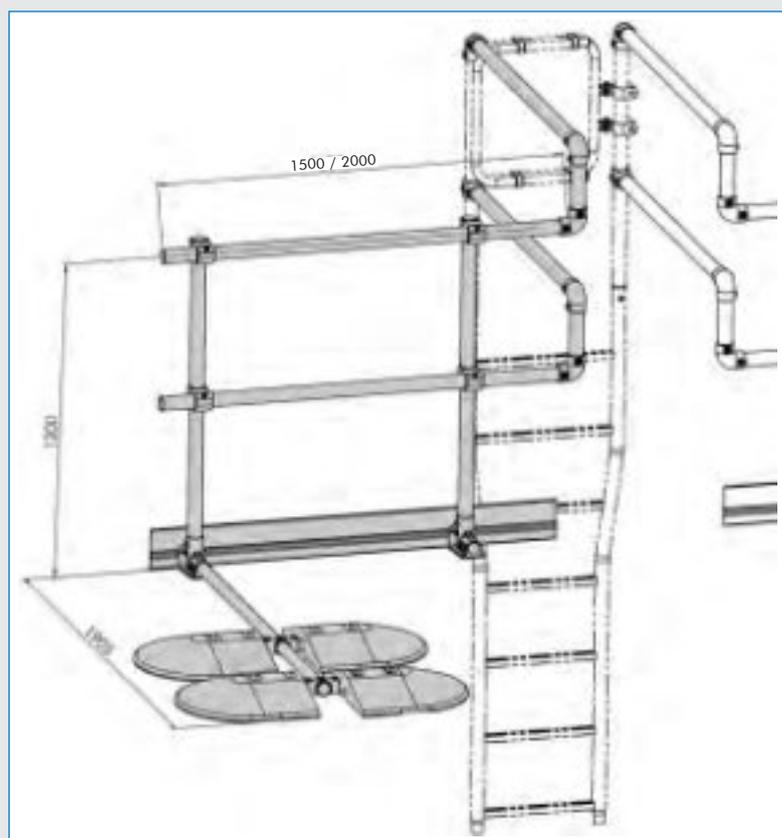
Order No. 0529 3400 01 33,00€
Order No. 0529 3400 02 44,00€

Guard rail one-sided left or right

Material	Width of the railing	stile Ø	Order No.
Steel, hot-dip galv.	1500mm	48 mm	0529 3400 00
Steel, hot-dip galv.	2000mm	48 mm	0529 3400 03

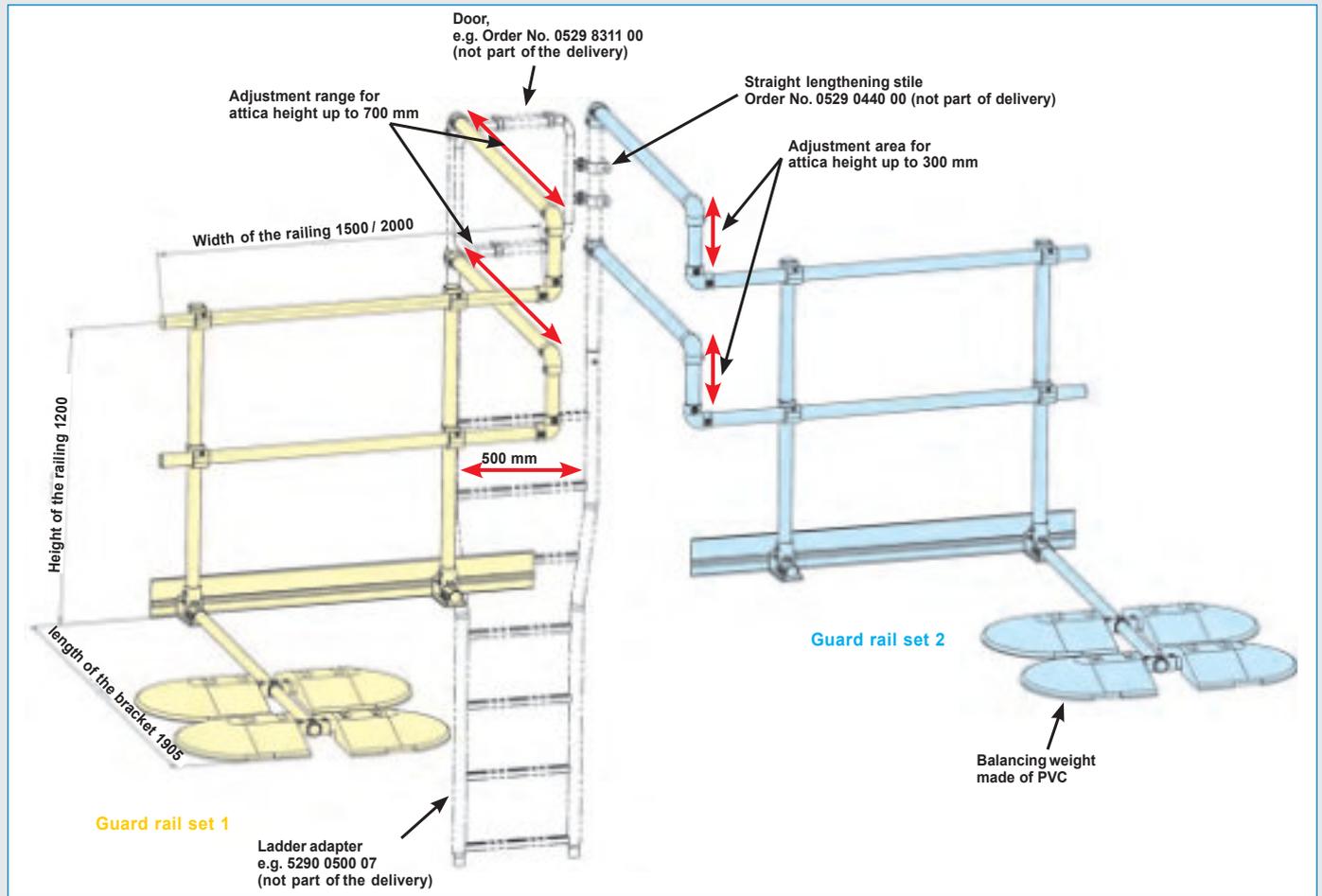


As a general rule at exit points personal safety devices are required, which should be assembled as bilateral railing to the ladder if possible, see DIN EN ISO 14122-4: 2016 5.4.



Exit guard rail

for attaching to straight lengthening stiles



Exit guard rail (2 sets) with door



Balancing weights made of PVC, pads available as accessories



Exit guard rail (2 sets) with pivotable entry aid

Exit guard rail for attaching to crossingelements

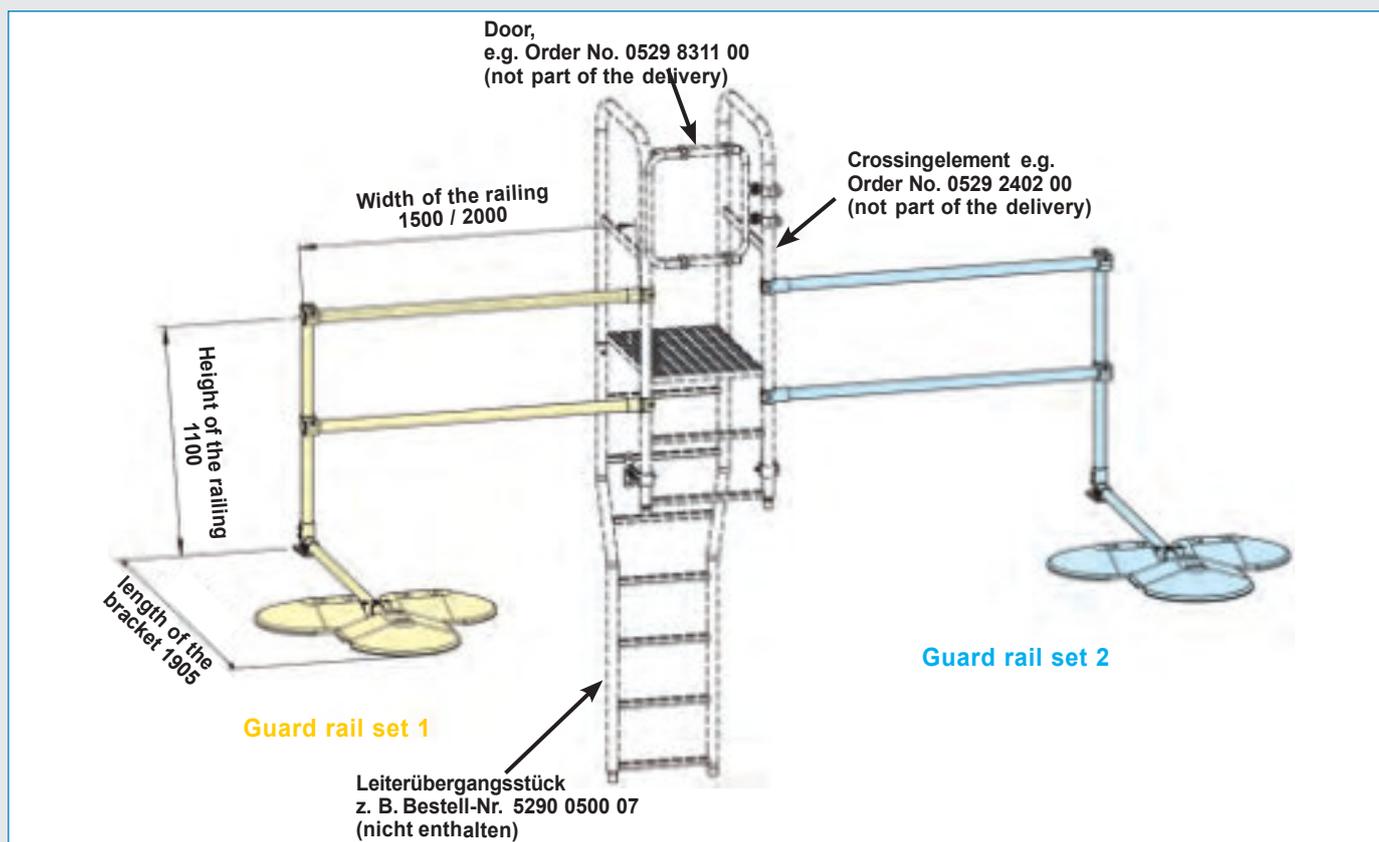
- »»According to the standards DIN EN 14122-4, DIN 18799-1, DIN 14094-1
- »»one-sided rail set for a safe step off the ladder
- »»suitable for flat roofs of up to 10° inclination, not for trapezoidal profiles
- »»Weather and corrosion resistant
- »»height of the railing 1,10 m, Auslegerlänge ca. 1,91 m
- »»Quick and easy assembly, no drilling, attachment or penetration of the roof membrane. No upstand or parapet-wall required
- »»totally compatible with all components of the HACAsystem with pipes Ø 48
- »»For assembly to the crossing elements (not part of the scope of delivery, order no. 0529 2402 00)
- »»Suitable for different measures of atticas as the rail pipes can be shortened on site, height up to 300 mm, width up to 700 mm
- »»balancing weights made of recycled PVC
- »»can be adopted flexibly to all conditions on site
- »»No support to or fixation of the rail from the building wall necessary
- »»Accessories for 1 set
Set of washer mats one sided for 4 balancing weights and 2 leg supports
Available for protection of the roof:
for roofs with foil surface: fibours web set
for roofs with bitumen surface: elastomer set

Order No. 0529 3400 01 33,00€
Order No. 0529 3400 02 44,00€

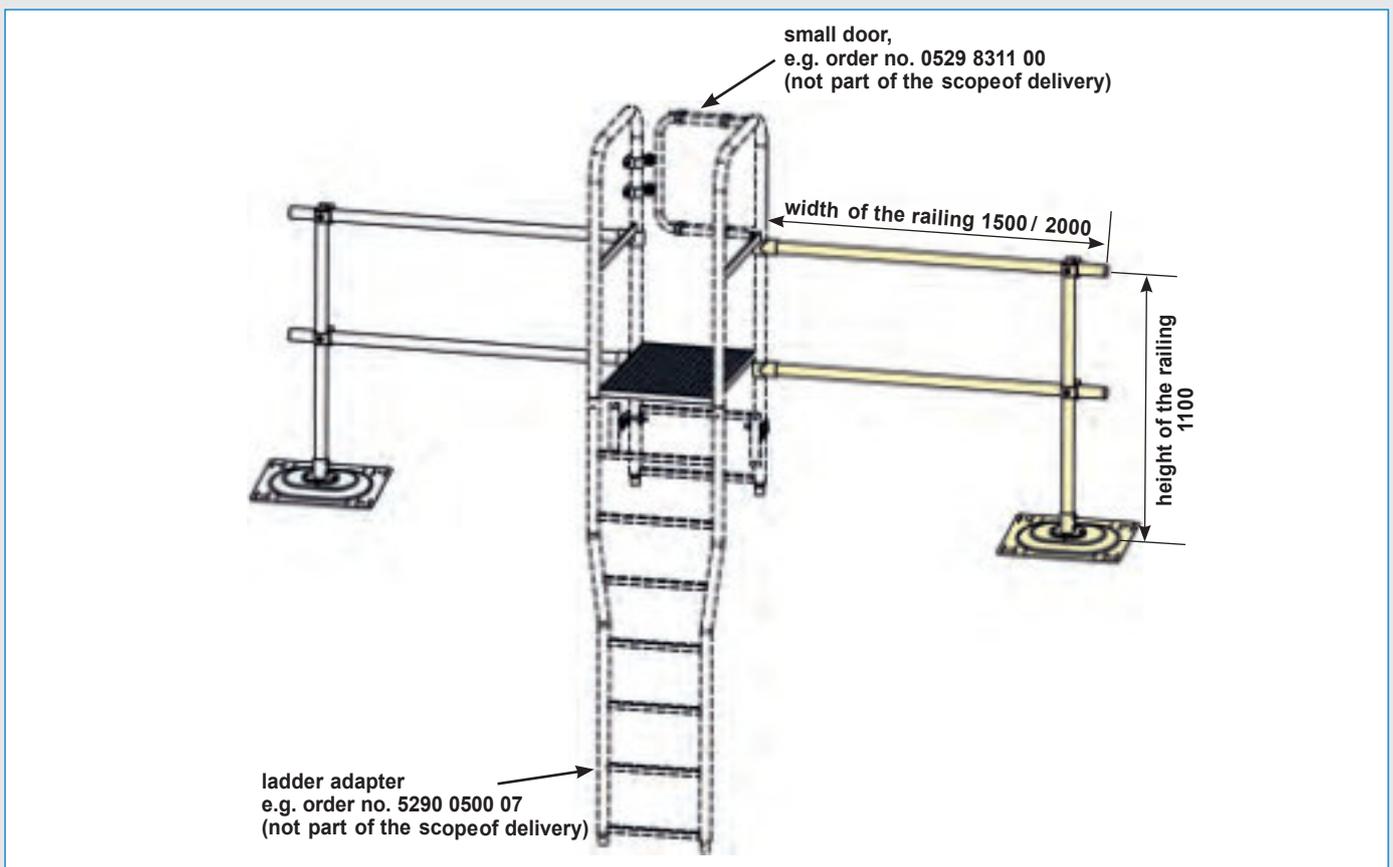
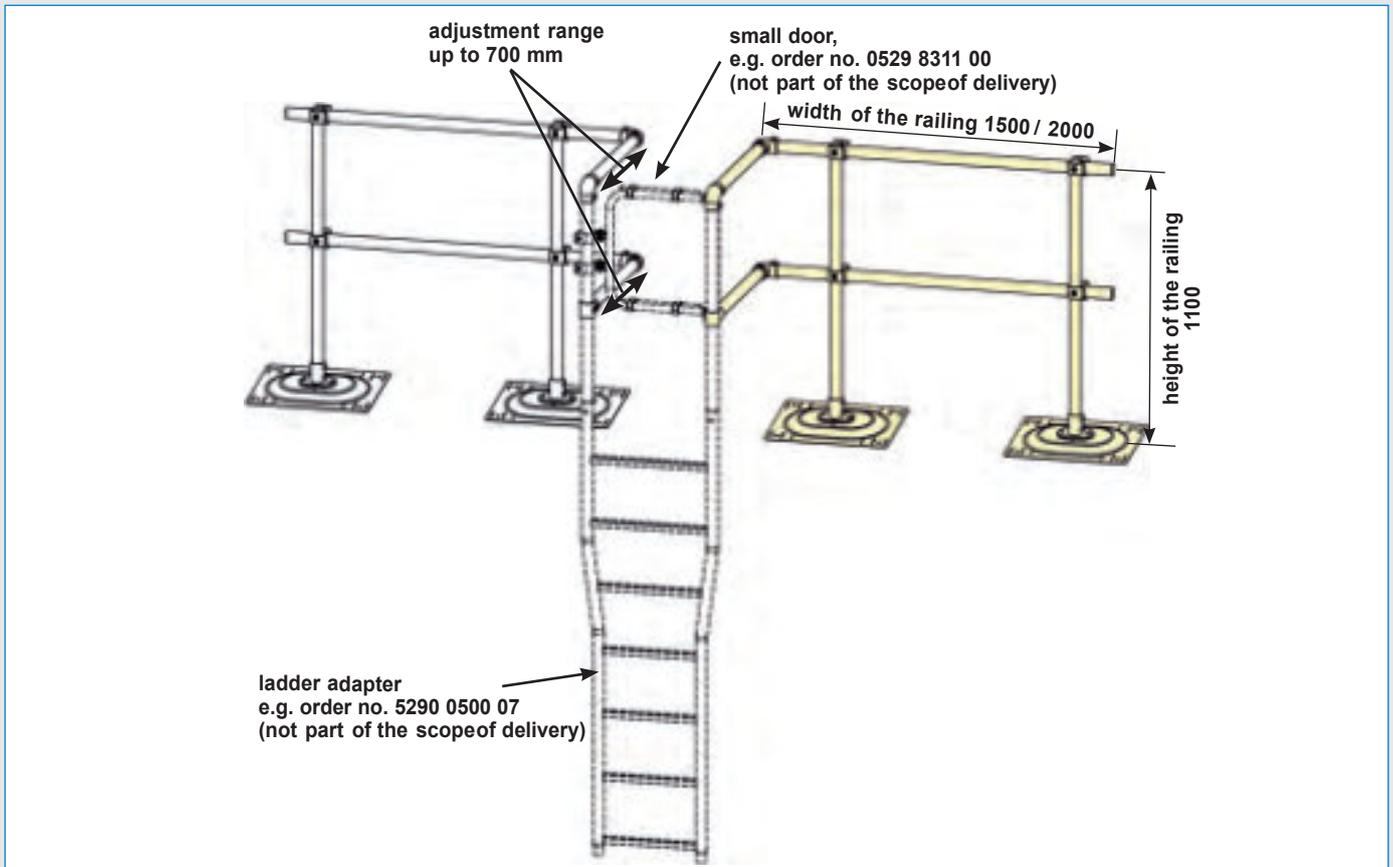
Guard rail one-sided left or right

Material	Width of the railing	stile Ø	Order No.
Steel, hot-dip galv.	1500mm	48 mm	0529 3424 00
Steel, hot-dip galv.	2000mm	48 mm	0529 3424 01

 As a general rule at exit points personal safety devices are required, which should be assembled as bilateral railing to the ladder if possible, see DIN EN ISO 14122-4: 2016 5.4



Variants Anti-fall guard available on enquiry



Crossing element

now also available for roofs made of trapezoidal profiles



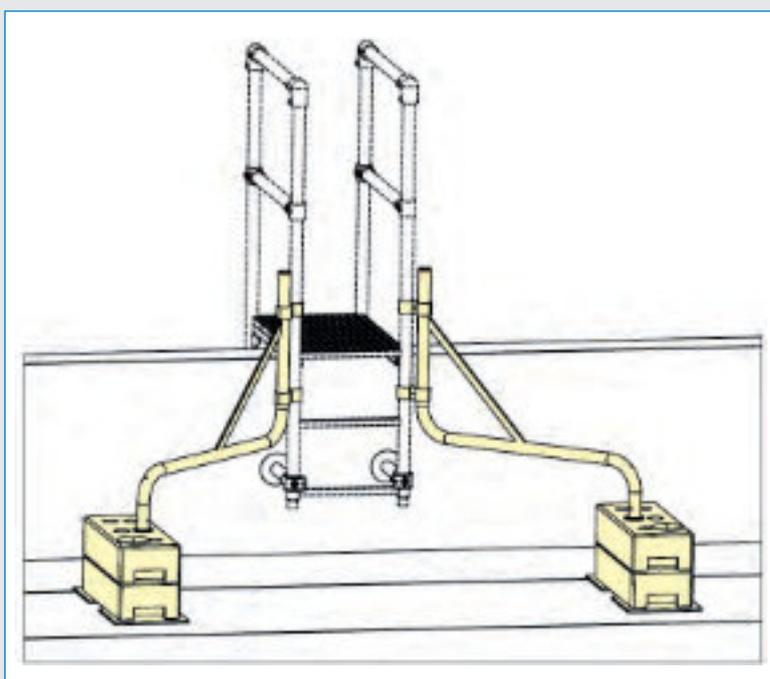
Counter weight for crossing elements

For use on flat roofs where the roof skin and the attic must not be damaged.

1 set consists of 2 balancing weights incl. accessories.

Set of washer mats **0529 2440 05**
(Mats 300 x 300 mm) are included
in the scope of delivery.

Material	Order no.
recycled PVC	0529 2440 00



Self-supporting Anti-fall guard available on enquiry

Collective anti-fall railing for flat roofs are no luxury – but a technical regulation!

We offer system solutions for the erection of safety-related installations.

The system is appropriate for different roof surfaces with a maximum inclination of 10° and a horizontal load of 300 Nn/m.

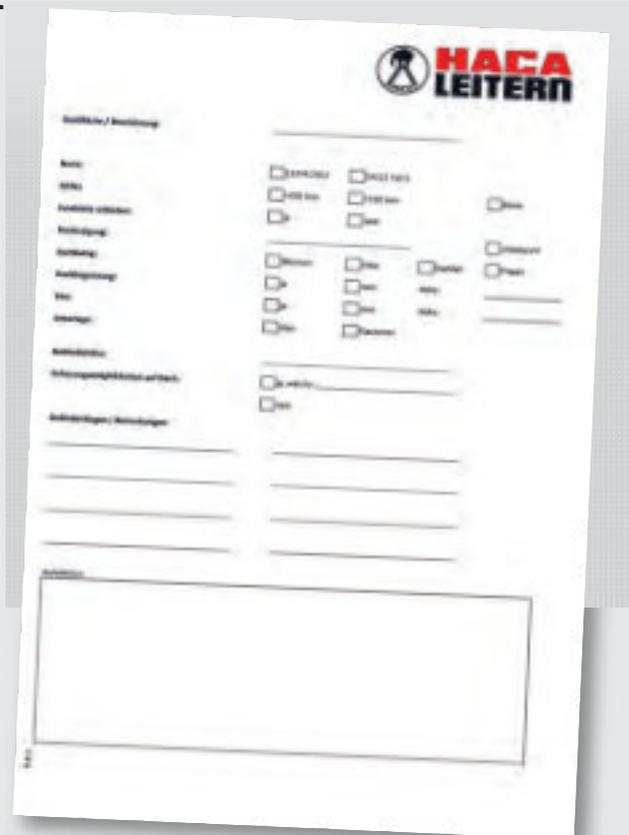
Our product fulfills the legal regulations of the labour protection law, the work place ordinance and regulation of industrial safety and the requirements of the standards EN ISO 14122-3 and EN 13374.

Fast and simple assembly without damaging the roof membrane is possible.

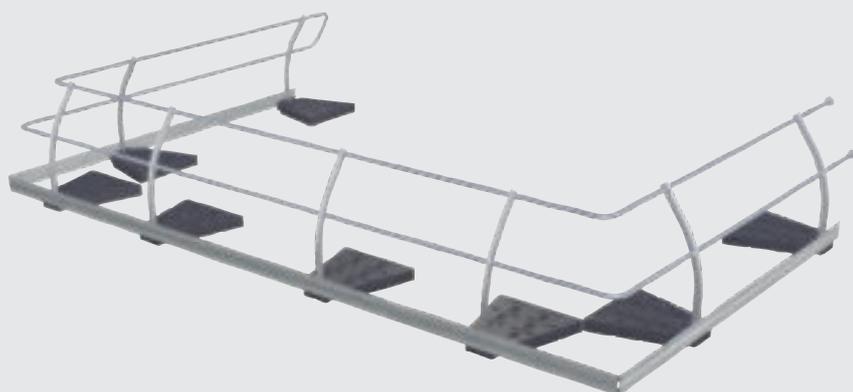
Simple assembly, change and dismantling without a special qualification of the staff.

It will be a pleasure to make an individual offer for you, we need the following information to do so:

- Is there an attic? If yes – is it higher than 150 mm?
- Is there gravel fill on the roof?
- Is the roof made of bitumen or foil?
- Furthermore we need a sketch with length specifications



Our checklist is available on www.haca.com in downloads/„forms“.



ACCESSORIES for two stile ladders

HACA platforms have diverse uses



Design

Steel, hot-dip galvanised or V4A stainless steel.

Substructure made of strong profiled bars with angled supports and stable grating.

Railings made of tubular steel, Ø48 mm, with rails at knee and foot level and connecting straps to the ladder.

Basic platforms can be broadened by adding a desired number of supplementary platforms in grids of 600 mm, 800 mm and 1000 mm.

The foot barriers of railings are 100 mm as a standard measure.

Application

As escape route, emergency escape from windows, chimney stack platform, rest platform etc.

Scope of delivery

This contains all parts required for construction according to regulations.

Products are delivered disassembled..

Special equipment

Please order / inquire spacers for insulated façades, gutters preventing marks from water and fixing dowels separately.





Load per m² = 600 kg.
 Railings are designed for a horizontal force of up to 50 kg/m and therefore comply with all regulations.

ACCESSORIES for two stile ladders

Basic platform

for wall insulation of 0 – 180 mm



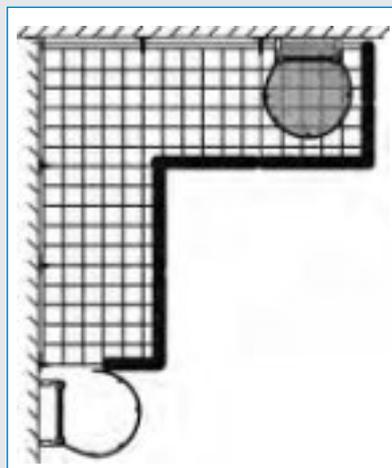
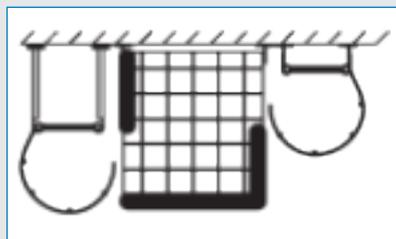
Supplementary platform

for wall insulation of 0 – 180 mm



Dimensions Width x depth (mm)	Platform design	Steel, hot dip galv. Order No. Concrete	Steel, hot dip galv. Order No. Masonry	V4A stainl. steel Order No. Concrete	V4A stainl. steel Order No. Masonry
600 x 800	Basic pl..	0529 2805 01	0529 2806 01	0929 2805 01	0929 2806 01
600 x 800	Suppl. pl.	0529 2905 01	0529 2906 01	0929 2905 01	0929 2906 01
800 x 800	Basic pl..	0529 2885 01	0529 2886 01	0929 2885 01	0929 2886 01
800 x 800	Suppl. pl.	0529 2985 01	0529 2986 01	0929 2985 01	0929 2986 01
1000 x 1000	Basic pl..	0529 2105 01	0529 2106 01	–	–
1000 x 1000	Suppl. pl.	0529 2205 01	0529 2206 01	–	–
500 x 1000	Basic pl..	0529 2257 01	0529 2258 01	–	–
500 x 1000	Suppl. pl.	0529 2259 01	0529 2260 01	–	–
1000 x 1300	Basic pl..	0529 2117 01	0529 2118 01	–	–
1000 x 1300	Suppl. pl.	0529 2217 01	0529 2218 01	–	–
500 x 1300	Basic pl..	0529 2317 01	0529 2318 01	–	–
500 x 1300	Suppl. pl.	0529 2415 01	0529 2416 01	–	–

Application examples:



There is a variety of combinations for platforms.

We would be happy to give you some advice.

If possible let us have a thumbnail sketch.



Distances between rest platforms in line with application areas and associated rules and regulations (standards).

ACCESSORIES for two stile ladders

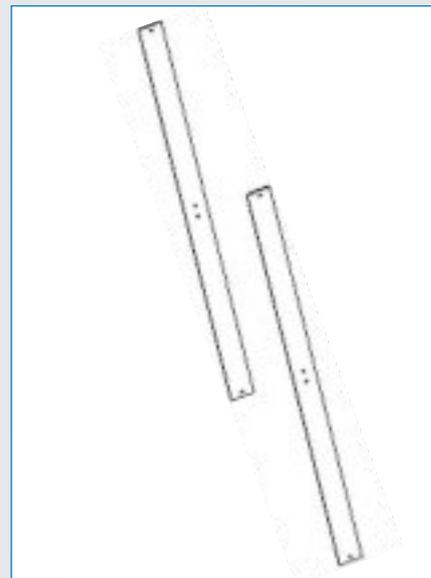
Accessories for Platforms

Platform connections

With the help of this set it is possible to connect two platforms directly. Thereby the middle supporting bar is dispensable when assembling. Thus the platform can be mounted directly above the window.

 More than two platforms cannot be connected by the platform connection.

For connection of platform ladders	length of connector mm	Order No.
600 + 600	1200	0529 2240 00
600 + 800	1400	0529 2241 00
1000 + 500	1500	0529 2242 00
800 + 800	1600	0529 2243 00
1000 + 1000	2000	0529 2244 00



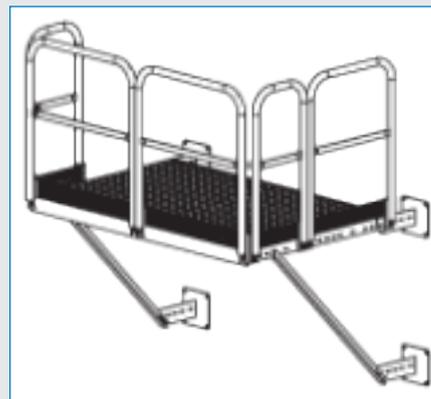
Savings for platforms for concrete

The following parts for the basis platform do not have to be applied:
 1 x 0529 2800 13 – supporting bar
 2 x 0529 2801 12 – platform/strut holder (concrete)
 as well as 8 fixing dowels and assembly time for the components

Savings for platforms for masonry

The following parts for the basis platform do not have to be applied:
 1 x 0529 2800 13 – supporting bar
 2 x 0529 2802 12 – platform/strut holder (masonry)
 as well as 8 fixing dowels and assembly time for the components

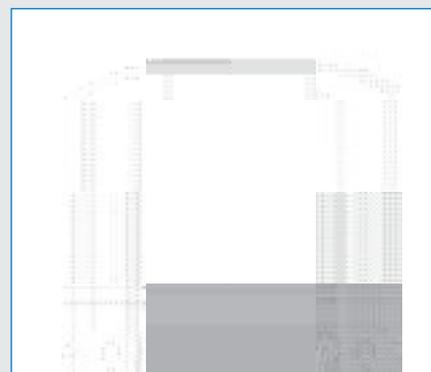
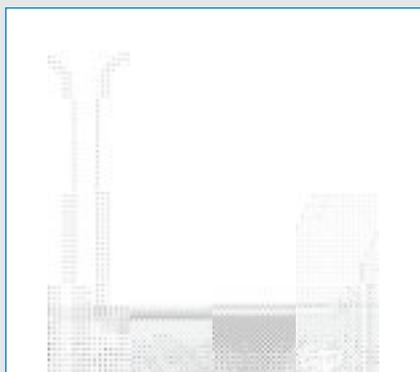
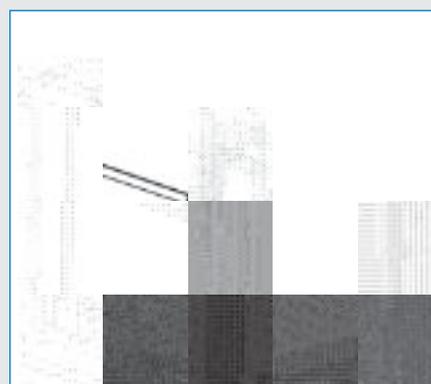
Please ask for your individual offer when using connectors.



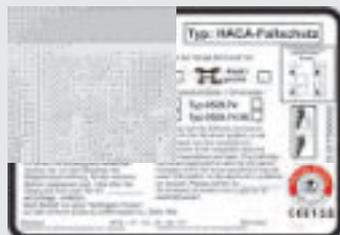
Pedestal support bracket

- » These pedestal support brackets enable the fastening of pedestals where a lower inclined support is not possible.
- » for basic and supplementary platforms X x 1.000 or 1.000 x X
- » Dimensions
 1007 mm x 740 mm x 240 mm

Material	Order No.
Steel, hot-dip galv.	0529 2803 12



ACCESSORIES for two stile ladders



Type 0175 / Type 0176
Identification of each entry and exit point



Type 0173.10 / Type 0174.10
Identification of fixed ladders

Identification plates

Made of writable plastic respectively film. Size approx. 170 x 100 mm, or 170 x 120 mm

All fixed ladders must be fitted with an identification plate in accordance with DIN 18799-1:2019, DIN 18799-2:2019, DIN 14094-1:2017 and DIN EN ISO 14122-4:2016.

The standard can be marked with a cross on the label.

In addition, all fixed ladders with arrest rails must be marked at every point of entry and exit. The identification plate is therefore part of a complete fall protection system. This means that BOTH identification plates must be attached to fixed ladders with fall arrest rails; for fixed ladders with rear protection only the plate 0173 or 0174. If the ladder system includes a ladder guard or locking plate, an identification plate in German and English is included in the scope of delivery. Other languages on request

Model with screws 0174 / 0176

Should be mounted to the structure by the customer. Includes 4 dowels and 4 brass fixing screws.

Material	Design	Order No.
Plastic	Screw on	0176 0000 00
Film	Adhesive	0175 0000 00
Plastic	Screw on	0174 1000 00
Film	Adhesive	0173 1000 00

Adhesive Model 0173 / 0175

Made of adhesive film. If the ladder has a ladder guard the sign may be stuck on the inside of the guard in a manner that is weather protected.

High build zinc primer

To touch up areas of galvanised parts worked on subsequently.

Ratio of zinc in dry film $\geq 50\%$. Bright, shiny finish. Without aluminium which means it is also suitable for use in potentially explosive areas.

Tin	Order No.
100 ml	0052 9010 00



ACCESSORIES for two stile ladders

Retractable handgrips for wall mounting

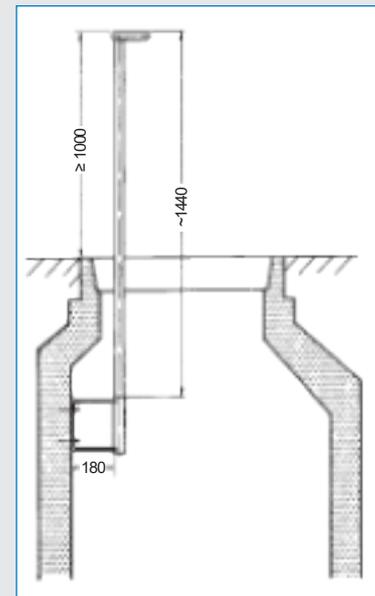
With large building distance.

Depending on how the index screw is mounted, the support tube remains connected to the guide sleeve or it can be removed and used for further entries with guide sleeve.

Individually used with step irons.

Effective length approx. 1.44 m.

Material	Retract. hand grip inc. guide sleeve Order No.	Guide sleeve for other ladders Order No.
Steel, hot-dip galv.	0502 0000 00	0502 0100 00
V4A stainless steel	0902 0000 00	0902 0100 00



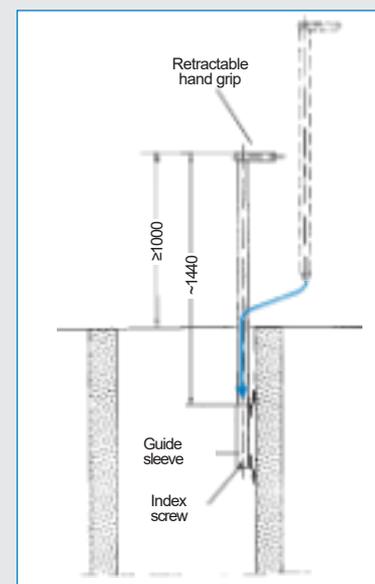
Retractable hand grips

for mounting on walls

Depending on the mounting of the index screws the holder bars remain connected to the guide bushings or they may be removed and used for other manholes with guide bushings.

Preferably use singly, e.g. with ladders and manhole steps. Effective length approx. 1.44 m.

Material	Retract. hand grip inc. guide sleeve Order No.	Guide sleeve for other ladders Order No.
Steel, hot-dip galv.	0501 0000 00	0501 0100 00
V4A stainless steel	0901 0000 00	0901 0101 00

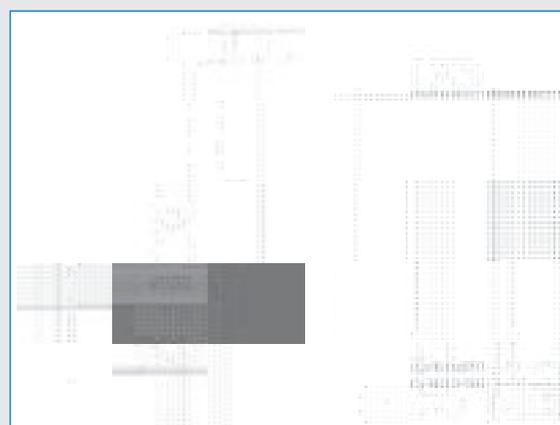


Foldable entry aid

According to DIN EN 14396 „Fixed ladders for small water supply structures“, but with a clearwidth of 366 mm (standard 300 mm). For clamping to the stiles of the permanently mounted ground ladders. With handgrips on both sides. For shaft openings up to ≥ 800 mm. For stile and rung dimensions, see basic ladders, effective length 604 mm (see illustration).

Please specify the size of the basic ladder on which the access ladder is to be mounted.

For ladder model	Material	Order No.
9282/84/87/89	V4A stainless steel	0928 8302 00



 We provide the requisite mounting forces for fixing components to surfaces other than concrete in the assembly instructions. In such cases please contact a specialist supplier of fixing dowels to ensure that the correct dowel is selected.

ACCESSORIES for two rail ladders

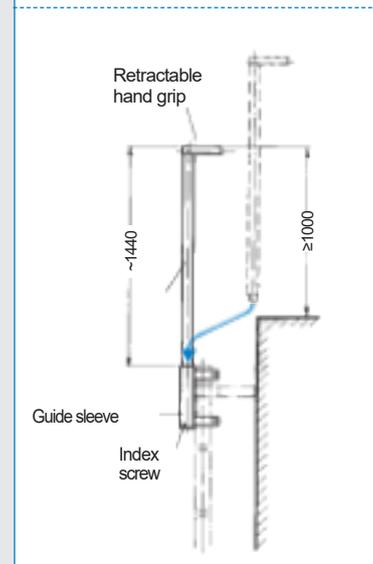
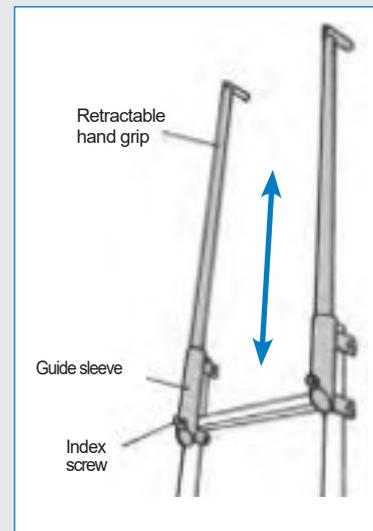
Retractable hand grips for mounting on ladders

Depending on the mounting of the index screws the holder bars remain connected to the guide bushings or they may be removed and used for other ladders with guide bushings.

We recommend use in pairs. Effective length approx. 1.44 m

For ladder model	Material	Retract. hand grip inc. guide sleeve Order No.
5290/94	Steel, hot-dip galv.	0529 1800 00
5284/89	Steel, hot-dip galv.	0528 1800 00
9290/94	V4A stainless steel	0929 1800 00
9284/89	V4A stainless steel	0928 1800 00
6290	Steel, hot-dip galv.	0529 1800 00
	or V4A stainless steel	0929 1800 00

For ladder model	Material	Guide sleeve Order No.
5290/94	Steel, hot-dip galv.	0529 1801 00
5284/89	Steel, hot-dip galv.	0528 1801 00
9290/94	V4A stainless steel	0929 1801 00
9284/89	V4A stainless steel	0928 1801 00
6290	Steel, hot-dip galv.	0529 1801 00
	or V4A stainless steel	0929 1801 00



Retractable handgrip type 0529.18



Clip-on entry aid details see page B.06

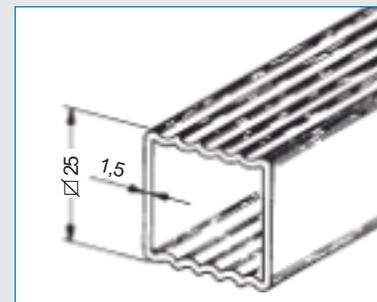
ACCESSORIES for two stile ladders

Square profile rungs

Tubular profile with slip-resistant grooves lengthwise on two opposite sides. Safe grip due to rounded edges.

Rods in lengths of approx. 3 m or 6 m (please specify).

Dimensions in mm	Material	Order No.
25 x 25 x 1,5	Steel, crude	0529 7501 00

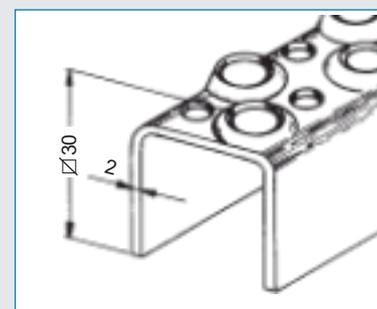


U-profile rungs

U-profile with optimised hole pattern. The double row of holes extends to edges and offers the greatest possible safety against slipping.

In rods in lengths of approx. 2 m.

Dimensions in mm	Material	Order No.
30 x 30 x 2	Steel, crude	0549 7500 00
30 x 30 x 2	V4A stainless steel	0949 7500 00

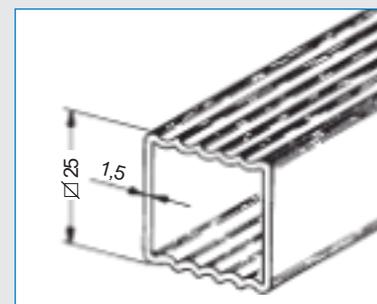


Square profile rungs

Tubular profile with slip resistant grooves lengthwise on two opposite sides. Safe grip due to rounded edges.

Rods in lengths of approx. 3 m or 6 m (please specify).

Dimensions in mm	Material	Order No.
25 x 25 x 1,5	V4A stainless steel	0929 7501 00

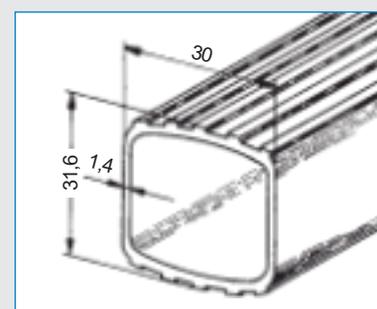


Extruded section

Tubular profile with slip resistant grooves lengthwise on two opposite sides. Safe grip due to rounded edges.

Rods in lengths of approx. 3 m or 6 m (please specify).

Dimensions in mm	Material	Order No.
30 x 31,6 x 1,4	Aluminium (AlMgSi0,5 F25)	0729 7502 00



Tube connectors »0520 Series« for Ø 48.3 mm (1 1/2") tube for general use

»»Application

For heavy constructions and horizontal forces up to 50 daN/m (50 kg/m))

»»DIN EN ISO 14 122, (DIN 24 532/33)

»»Castiron in accordance with DIN EN ISO 1562 and 1563, hot-dip galv.

Any colour coating must be applied by the customer.

»»Assembly

Screw connections using cup point set screws.

»»Table of charges can be found on our homepage under planning aid

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Permissible horizontal load and distances between posts
When using steel tube, tube Ø 48,3 (1 1/2") x 3,25 mm DIN2440

Horizontal distributed load N/linear m	Distance between posts with railing height (m)		
	0,90	1,00	1,10
300	2,00	1,80	1,65
500	1,20	1,10	1,00



Please note!

No complete constructions can be erected using pivoting tube connectors alone. Stability problems may arise from the fact that they can be rotated (e.g. Order No. 0520 4238 00)..



Order No. 0520 5700 00
Elbow, 90°.

①



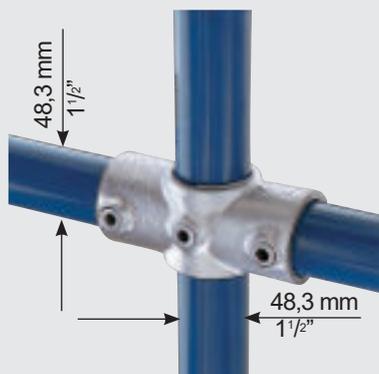
Order No. 0520 5200 00
Tee

②



Order No. 0520 4600 00 Side outlet elbow, 90°, closed, e.g. for handrail/support joint..

③



Order No. 0520 5300 00
Two socket cross

④



Order No. 0520 4500 00
Side outlet tee, 90°, with Side outlet tee, opening, e.g. for pipe bend / e.g. for frames. support joint.

⑤



Order No. 0520 4700 00
Side outlet tee, e.g. for frames

⑥

Tube connectors »0520 Series« for \varnothing 48.3 mm (1 1/2") tube



Order No. 0520 0200 00
Tee, open.

⑦

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Order No. 0520 5138 00
Single swivel socket

⑧



Order No. 0520 4138 00
Double swivel socket

⑨



Order No. 0520 4801 00
Corner joint with opening, two-piece therefore adjustable from 90° to 180°. When used with handrail/support joint: order plastic plugs Order No. 0520 0400 00*.

⑩

* set = 10 units.



Order No. 0520 2901 00
Cross/corner joint 60° – 180° adjustable for pipe bend \varnothing 26.9 mm (3/4"). Steel tube, \varnothing 26.9 mm (3/4") for knee-level rail on request. **Cost reduction through reduction of knee bend \varnothing . Complies with DIN 14 122-3.**

⑪



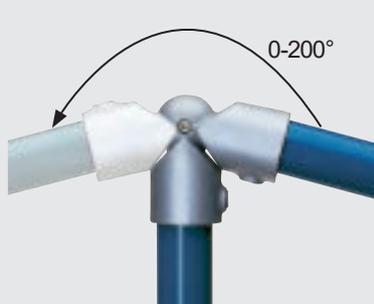
Order No. 0520 5800 00
Adjustable connector Adjustment range 30° – 45°.

⑫



Order No. 0520 6100 00
Double swivel socket, 90°. When used for handrail corner supports also order plastic plugs Order No. 0520 0400 00.

⑬



Order No. 0520 1500 00
Swivel socket Adjustment range 0° – 200°. Can be used in place of pipe bends.

⑭



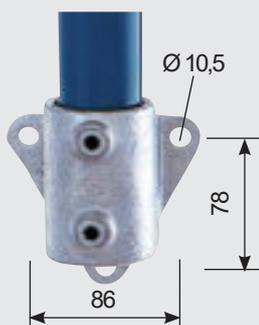
Order No. 0520 6000 00
Pivoting connector M

⑮



Order No. 0520 5900 00
Pivoting connector W

⑯



Order No. 0520 1300 00
Wall plate for sideconnection

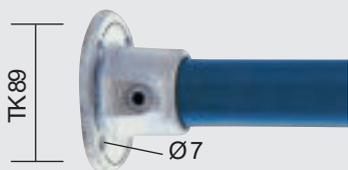
⑰



Order No. 0520 4238 00
Base/wall plate With hinged connector. Only for fastening bearings, not intended as fixing element for supports.

⑱

Tube connectors »0520 Series« for $\varnothing 48.3$ mm (1 1/2") tube



Order No. 0520 1000 00 (19)
Wall plate
 Only for fastening bearings, not intended as fixing element for supports



Order No. 0520 1400 00 (20)
Support base
 Support fixing element with 2 fixing screws.

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Order No. 0520 3000 00 (21)
Support base
 for bottom rails (100mm).
 Bottom rail on request.



Order No. 0520 6200 00 (22)
Railing connector

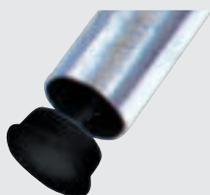


Order No. 0520 0100 00 (23)
Tube connectors

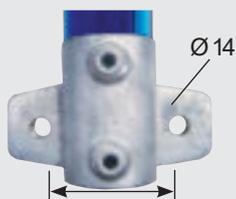


Order No. 0520 1200 00 Steel tube, hot-dip galv., $\varnothing 48,3 \times 3,25$ mm (1 1/2"), in manufacturer lengths of approx. 6 m.

Order No. 0520 1100 00 as abovebut in fixed dimensions.



Order No. 0520 0400 10
Plastic plugs
 (10 units)



Order No. 0520 7000 00
Parapet fixing

Application examples

Chimney Connection of railings to a fixed ladder

Frame

Chimney stack railing
 Required if post distance > 1,3 m

Stair rail with perpendicular support posts

Stair and platform railing

Barrier
 Corner support, Handrail, Central support, Pipe bend

Please note!!
 Railings will be used with or without bottom rails depending on the application, e.g. barriers etc. When designing railings the respective safety requirements to be met must be taken into consideration.

Tube connectors »0520 Series« for Ø 48.3 mm (1 1/2") tube

- »»DIN EN ISO 14 122, (DIN 24 532/33)
- »»For stair angles of 30° – 60°
- »»No bending on site now necessary
- »»Considerable cost savings

Now including rust prevention for screw threads Thredcoat®



Order No. 0520 2700 00 (24)
Adapter
 Adjustment range 30° – 45°, for handrail/bottom support.

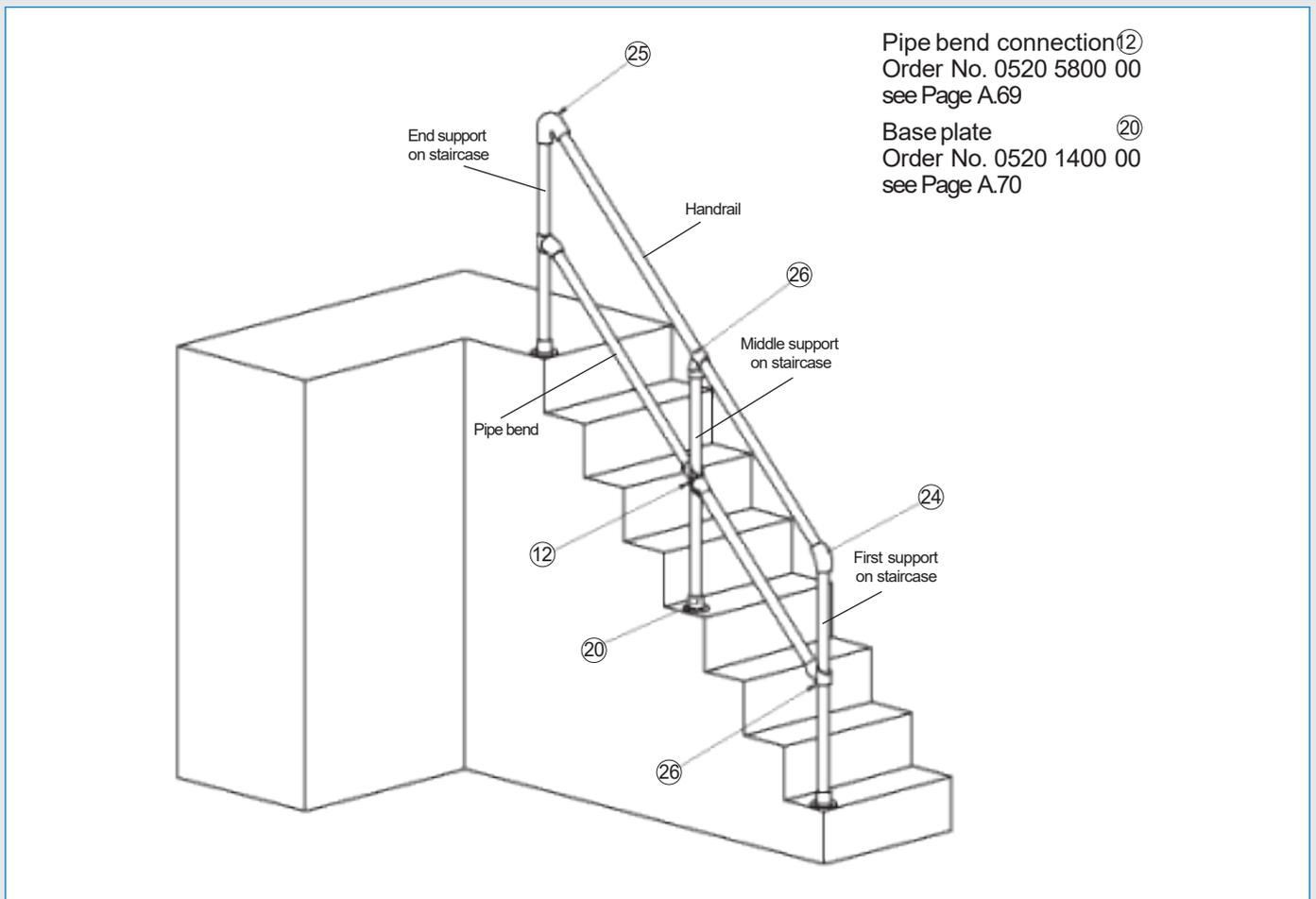


Order No. 0520 2800 00 (25)
Adapter
 Adjustment range 30° – 45°, for handrail/top support.



Order No. 0520 3100 00 (26)
Tee
 Adjustment range 30° – 60°, for handrail/middle support, end support, knee-level rail.

Application example



Tube connectors »0520 Series« for Ø 48.3 mm (1 1/2") tube

»»DIN EN ISO 14 122, (DIN 24 532/33)

»»For ramp inclines 3° – 11°

»»No bending on site now necessary

»»Simple, rapid assembly

Now including rust prevention for screw threads Threadcoat®



Order No. 0520 2200 00 ⁽²⁷⁾
Adapter,
 adjustment range 79° – 101°,
 handrail/support.



Order No. 0520 2300 00 ⁽²⁸⁾
Tee, adjustment range 0° – 11°, First
 supports/knee level rail (also for
 handrail/middle support).



Order No. 0520 2400 00 ⁽²⁹⁾
Tee
 Adjustment range 0° – 11°,
 handrail/middle support.



Order No. 0520 2500 00 ⁽³⁰⁾
**Two socket cross for railing at
 knee level,** Adjustment range
 0° – 11°.

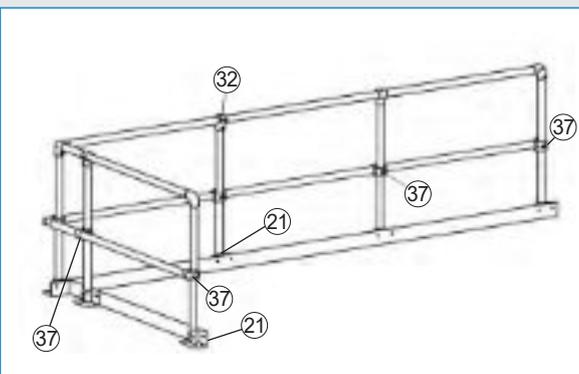
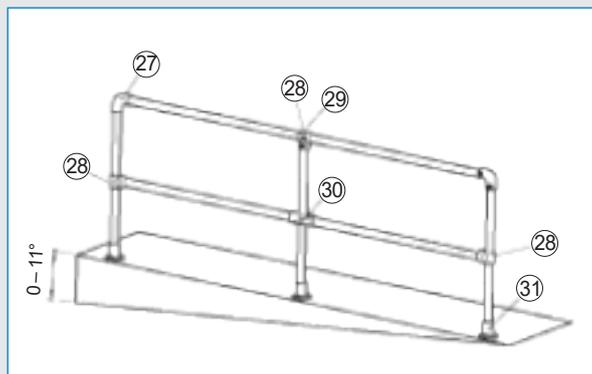


Order No. 0520 2600 00 ⁽³¹⁾
Base support,
 adjustment range 3° – 11°.



Order No. 0520 6600 00
Clamp-on crossover,
 for 90° offset adapters.

Application examples



Please note!

Railings will be used with or without bottom rails depending on the application, e.g. barriers etc. When designing railings the respective safety requirements to be met must be taken into consideration.

Tube connectors »0520 Series« for Ø 48.3 mm (1 ½") tube

- »»DIN EN ISO 14 122, (DIN 24 532/33)
- »»Extension of existing constructions
- »»Nodismantling of existing parts
- »»Rapid, cost-effective assembly
- »»Construction method tested

Now including rust prevention for screw threads Thredcoat®



Order No. 0520 1600 00
Tee

32



Order No. 0520 1700 00
Side outlet tee with opening.

33



Order No. 0520 1800 00
Two socket cross

34



Order No. 0520 1900 00
Three socket cross

35



Order No. 0520 2000 00
Four socket cross

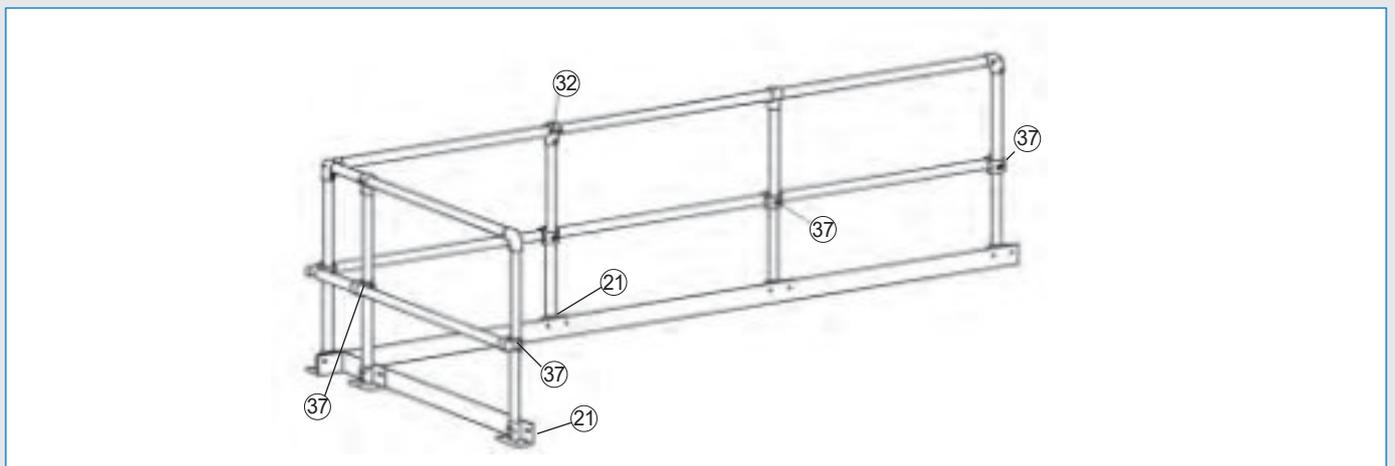
36



Order No. 0520 2100 00
Crossover
for rails at knee level.

37

Application example



Tube connectors »0520 Series« for Ø 48.3 mm (1 ½") tube

- »»DIN EN ISO 14 122, (DIN 24 532/33)
- »»Extension of existing constructions
- »»Nodismantling of existing parts
- »»Rapid, cost-effective assembly
- »»Construction method tested

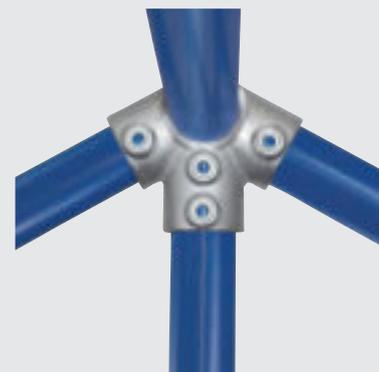
Now including rust prevention for screw threads Thredcoat®



Order No. 0520 7200 00
Parapet fixing for side attachment of safety railings



Order No. 0520 7700 00
Parapet fixing for bottom attachment of safety railings



Order No. 0520 7400 00
Ridge fitting to create a tent construction



Order No. 0520 7300 00
Eaves fitting to create a tent construction



Order No. 0520 7500 00
Connector with slots to fix crossbars between the posts



Order No. 0520 7600 00
Connector with slot for railings at knee level to fix crossbars between the posts

Accessories:

Hexagon socket grub screw 3/8"
(20 pieces)

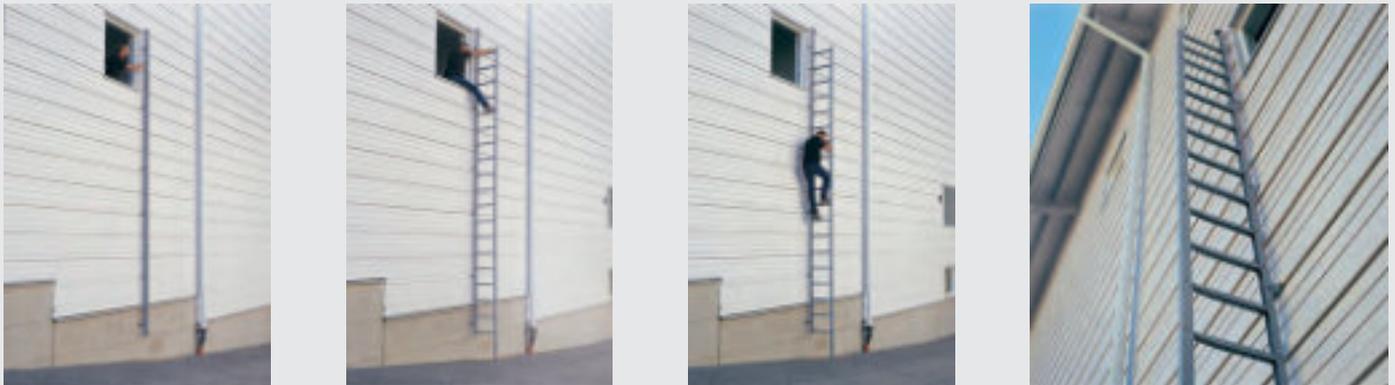
Order No. 0520 0510 00

Foldable escape ladder

Folding facade ladder made of hot-dip galvanised steel. The surface coating type Magnelis protects and provides an optically beautiful surface. It is fastened directly to the outer facade. When folded up, the ladder appears only as a 45 mm wide strip.

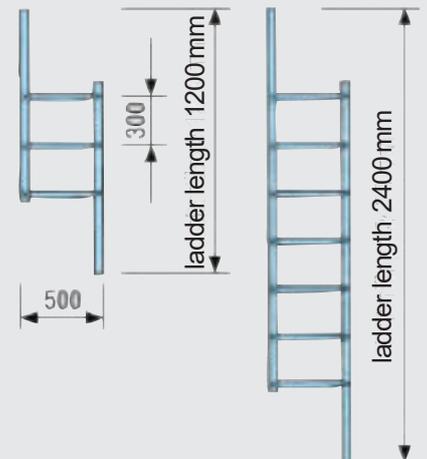
The ladder is opened by means of a rope attached outside the window. The ladder is supplied in the modules listed below, assembly takes place on site. Assembly instructions are included with each delivery.

There is no approval for this type of ladder, no replacement for emergency ladders!



Ladder

Length x width (mm)	Weight approx. kg	Order No.
1200 x 500	7,5	8438 1001 20
2400 x 500	11,5	8438 1002 40



Connection set

Complete connection set with one step and the necessary screws. One set is required per ladder connection.

Nomination	Weight approx. kg	Order No.
Connection set	1,0	0843 8000 01

Ladder top and rope

The upper part keeps the ladder retracted in the normal position. The rope is pulled to extend the ladder. The rope is usually supplied in the ladder length and can be shortened on request.

Nomination	Weight approx. kg	Order No.
Laddertop (low)	0,2	0843 8000 03
Rope (sales per meter)	0,01	0843 8000 04

Foldable escape ladder

Console

Distance between struts: 900-1200 mm. If the wall is uneven, spacers must be used to stabilise the ladder (not included in delivery).

Distance between facade and ladder	Weight approx. kg	Order No.
15-25 mm (standard console)*	0,20	0843 8000 02
Screwset for mounting the console to the ladder M10x60 (10 pieces)	0,41	0843 8000 08
Nut set M10,(10 pieces)*	0,13	0843 8000 09

* Mounting with 2 screws and nuts as well as the required number of washers (not included in delivery).

We would be pleased to create a complete ladder set for you, please ask for it.

If the facade is made of wood or sheet metal, you will also need one mounting plate per bracket!

Please ask for a specific mounting plate.



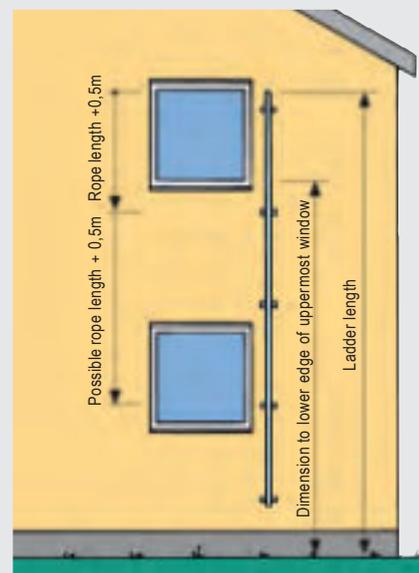
Accessories/planning

Handrail and standing plate

Nomination	Weight approx. kg	Order No.
Handrail, mounted to the wall	0,77	0843 8000 06
Standing plate, mounted to the wall	3,70	0843 8000 07

For 5m escape ladder you need e.g.

2 x	8438 1002 40	ladder 2.40m
1 x	0843 8000 01	connection set
5 x	0843 8000 02	console
1 x	0843 8000 03	laddertop
4,80 m	0843 8000 04	rope
1 x	0843 8000 05	instruction for assembly
1 x	0843 8000 08	screw set
1 x	0843 8000 09	nut set





HACA LEITERN

SINGLE STILE LADDERS



1888 - 2018
130 Years HACA-Leitem

2020

SINGLE STILE LADDERS

Page

FIXED SINGLE STILE LADDERS

Made of STEEL/hot-dip galvanised and V4A STAINLESSSTEEL

B.02 – 03

Single stile ladders made of  profile

5442.03/9442.03

B.04 – 08

Accessories

FIXED SINGLE STILE LADDERS

Made of ALUMINIUM

B.10 – 11

Single stile ladders made of  profile

6433/6434/6437/6438

B.12 – 18

Accessories

MOBILE SINGLE STILE LADDERS

Made of ALUMINIUM

B.20 – 21

Mobile single stile ladders made of  profile

6442.01/6442.04.01/6442.06.01

B.22 – 23

Accessories

SINGLE STILE LADDERS Model 5442.03/9442.03

Material

Steel/hot-dip galv.
 Stainless steel
 Aluminium
 Fibreglass on enquiry

Typical features

»» Central stile made of profile

Advantages

- »» Standardised system
- »» With integrated fall arrest rail
- »» Continuous fall arrest system
- »» Simple and flexible assembly due to grid perforation
- »» Steel and stainless steel can be combined

Design

Steel, hot-dip galvanised in acc. with DIN EN ISO 1461 and V4A stainless steel.

Rungs made of square tubular steel profile with slip resistant grooves and lateral limiters.

Stile/rung joints connected using gas shielded arc welding.

With 140-mm grid perforation for universal mounting.

Wall fixing elements are screwed on.

The central stile is also the fall arrest rail.

With butt connectors.

Applications

»» General use



Rail/rung joint

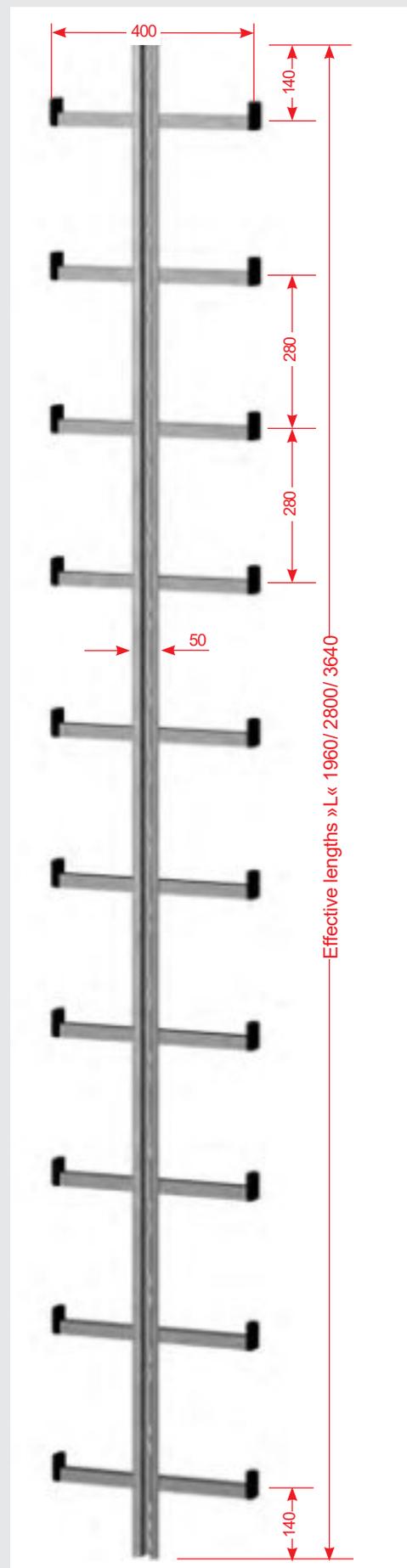
Dimensions

Rung distance 280 mm
 Outer ladderwidth 400 mm
 Middle stile made of profile (W x D) 50 x 30 mm
 Tubular profile rungs 25 x 25 mm

Accessories and special equipment

from page B.04 onwards.
Fixing dowels/identification plate see page B.26/27.

For suitable fall arresters and for safety harnesses see »Personal Protective Equipment«.



Fall arresters and safety harnesses must be used as from a drop of 3 m or 5 m respectively (depending on the relevant standard, see planning aid)



DIN EN 353-1 · DIN EN 14 396 · DIN 18 799-2: 2019
EN ISO 14122-4 · CE 0158

SINGLE STILE LADDERS Model 5442.03/9442.03

Model 5442.03			Steel, hot-dip galvanised
Size (rungs)	Effective length »L« approx. m	Weight approx. kg	Order No.
7	1,96	10,3	5442 0300 07
10	2,80	15,0	5442 0300 10
13	3,64	19,5	5442 0300 13



Model 9442.03			V4A stainless steel
Size (rungs)	Effective length »L« approx. m	Weight approx. kg	Order No.
7	1,96	10,3	9442 0300 07
10	2,80	15,0	9442 0300 10
13	3,64	19,5	9442 0300 13

On enquiry also available with coating resistant to saline atmosphere!

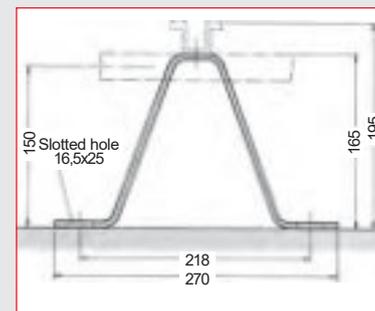
 Distances between rest platforms correspond to the areas of use and associated rules and regulations (standards).

ACCESSORIES for single stile ladders Model 5442.03/9442.03

Wall mounting bracket for flat structures

Includes bracket screw Model 0529.86 or Model 0929.86 to fasten the ladder.

Distance between structure/front edge of fall arrest rail approx. 195 mm.

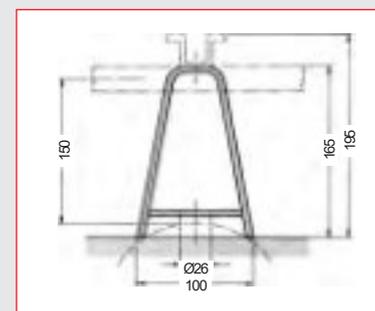


For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0544 1010 00
9442.03	V4A stainless steel	0944 1010 00

Wall mounting bracket for flat and rounded structures, Ø ≥ 200 mm.

Includes bracket screw Model 0529.86 or Model 0929.86 to fasten the ladder.

Distance between structure/front edge of fall arrest rail approx. 195 mm.

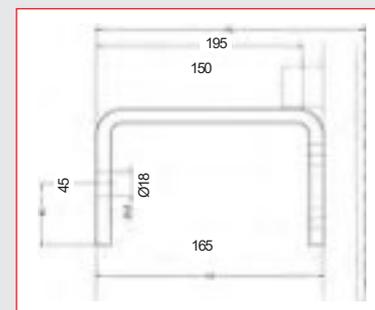


For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0544 1110 00
9442.03	V4A stainless steel	0944 1110 00

Wall mounting bracket for flat and rounded structures

Includes bracket screw Model 0529.86 or Model 0929.86 to fasten the ladder.

Distance between structure/front edge of fall arrest rail approx. 195 mm.



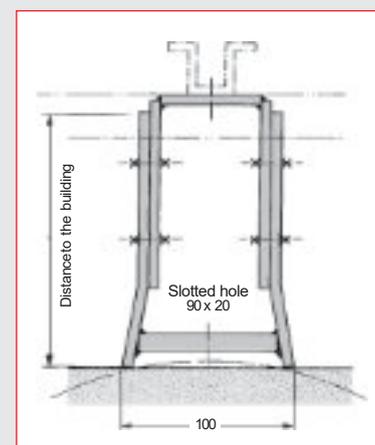
For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0544 1410 00
9442.03	V4A stainless steel	0944 1410 00

Adjustable wall mounting brackets**

for flat and round structures, Ø ≥ 120 mm.

Includes bracket screw Model 0529.86 or Model 0929.86 to fasten the ladder.

Variable distance between structure /front edge of fall arrest rail.



For ladder model	Material	Adjustable distance to structure from/to approx. mm*		
		165/255 Order No.	256/345 Order No.	346/435 Order No.
5442.03	Steel, hot-dip galv. € per unit	0544 6201 00 102,00	0544 6202 00 106,00	0544 6203 00 130,00
9442.03	V4A stainless steel € per unit	0944 6201 00 261,00	0944 6202 00 276,00	0944 6203 00 296,00

* other lengths available on enquiry



Wall mounts should be positioned at maximum distances of 1.68 m, however at least 2 mounting points should be provided per ladder part. Ladder sections < 5.04 m may only be used by one person at one time. Wall mounting brackets Model 0544.14/0944.14 should be positioned at distances of 0.98 m. For dowels suitable for concrete Model 0529.51.09 see Accessories for single rail ladders, page B.26

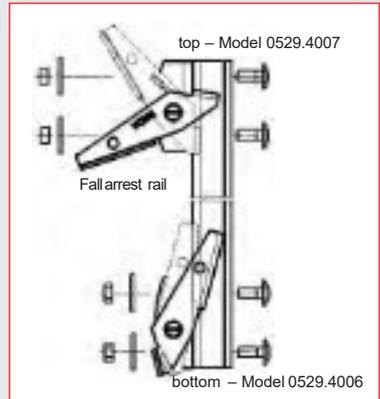
** Adjustable wall mounts serve to compensate for uneven surfaces. A separate structural certificate is required when a ladder is to be mounted entirely using adjustable wall mounts!

ACCESSORIES for single stile ladders Model 5442.03/9442.03

Movable end stops

Fall automatically into safety position.

For ladder model	Application	Material	Order No.
5442.03/9442.03	top	V4A steel	0529 4007 00
	bottom	V4A steel	0529 4006 00

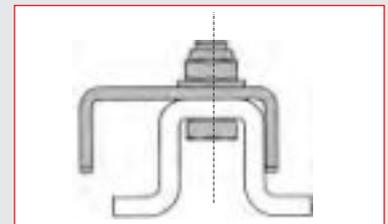


Endstops must be situated at the top and bottom end of a fall arrest rail as well as at any interruption in the rail. They prevent the fall arrester from slipping off the rail. Suitable for a forward inclination of up to 9°. If the ladder is mounted flatter, a removal flap should be used.

Fixed end stop

To be attached to the top of the ladder if the fall arrester does not need to be removed.

For ladder model	Application	Material	Order No.
5442.03/9442.03	top	V4A steel	0544 4100 00

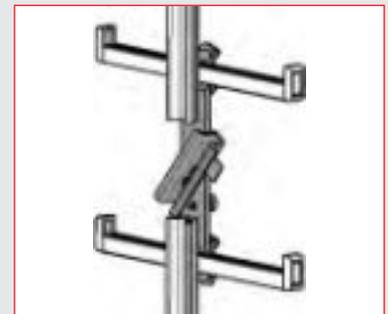


Removal flap

For safe, quick and easy insertion or removal of the fall arrester within a ladder installation.

Measurement from standing area up to the removal flap approx. 1 m or as specified. No end stops are required for this removal flap.

For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0544 3103 00
9442.03	V4A stainless steel	0944 3103 00

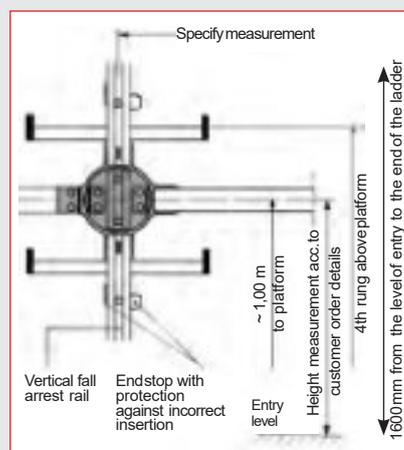


Switching point

Using the switching point in the form of a disc the user can move the fall arrester out of the perpendicular fall arrest rail or single rail fall protection ladder into horizontal fall arrest rails or vice versa.

Please enclose a sketch illustrating the situation with the enquiry.

Suitable for fall arresters from the series 0529.71, 0529.72, 0529.80, 0529.73 and 0529.74. Horizontal fall arrest see C.12.



Sketch of situation



Switching point Model 0929.46. Horizontal fall arrest rail (here one-sided, left) connected to perpendicular fall arrest rail via a switching point

For ladder model	wall distance mm	Material	Order No.
5442.03/9442.03	150	V4A stainless steel	0929 4615 00
5442.03/9442.03	200	V4A stainless steel	0929 4620 00

ACCESSORIES for single stile ladders Model 5442.03/9442.03

Clip-on entry aid DBGM

For entering and exiting covered manholes safely. The clip-on entry aid can be removed, e.g. in order to use it with other fall arrest ladders. The clip-on entry aid consists of a length of fall arrest rail approx. 1.20m long with 2 pairs of hand grips and an additional rung to make it easier to climb down to the first rung of a shaft ladder which may be very low due to a dirt trap. The entry aid has a lift lock. Mounted end stop Model 0529.40.07 at the top of the clip-on entry aid and an end stop Model 0529.40.07 for the customer to mount to the top of the ladder below. Weight approx. 7.8 kg. Effective length approx. 1.20 m.



For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0529 6503 00
9442.03	V4A stainless steel	0929 6503 00

Weight approx. 15 kg. Effective length approx. 1,60 m. In case of use an additional wall bracket must be applied.

For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0529 6504 00
9442.03	V4A stainless steel	0929 6504 00

A counter bracket Model 0929.84.04 must be mounted at the top end of every fall arrest system.

Counter bracket

A single clip-on entry aid can be carried in the vehicle and used for any number of manhole ladders. A counter bracket must be mounted on each ladder for this purpose.

For entry aid model	Material	Order No.
0529 65.03 0929 65.03	V4A stainless steel	0929 8404 00
0529 65.04 0929 65.04	V4A stainless steel	0929 8405 00



When using the counter bracket an additional movable bottom end stop (order no. 0529 4007 00) has to be assembled (not included).

360° counter bracket for clip-on entry aids

Like the counter bracket. However the clip-on entry aid can be rotated left or right up to 180°. This makes entry and exit much easier even in the tightest of spaces.

For entry aid model	Material	Order No.
0529 6503	V4A stainless steel	0929 8406 00
0929 6503	V4A stainless steel	0929 8406 00



When using the counter bracket an additional movable bottom end stop (order no. 0529 4007 00) has to be assembled (not included).

ACCESSORIES for single stile ladders Model 5442.03/9442.03

Pivotable entry aids DBGM

For safe entry and exit

Satisfies the requirements of DIN 18 799: 2019 and DIN EN ISO 14122-4.

The user, who is hooked onto the fall arrester, unlatches the top section and rotates it around the swivel point located on the left hand grip. Since the user is connected to the pivotable section via the fall arrester, the pivoting movement automatically causes him to move with the pivotable section and leaves him standing safely on the ladder to be climbed. He then releases the fall arrester. To be fastened to the structure by dowel by the customer. Pre-assembled.

Pivoting range approx. 100°. Effective length approx. 1 m.

16 dowels are required to fasten to the structure – see Page B.26.

An end stop order no. 0529 4007 00 has to be assembled to the upper end (not part of the scope of delivery).

The pivotable entry aid is part of a fall arrest system according to DIN EN 353-1.

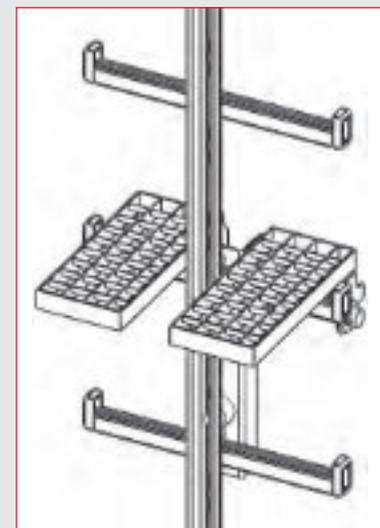


For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0529 6703 00
9442.03	V4A stainless steel	0929 6703 00

Folding rest platforms

Consisting of 2 areas for standing each measuring 130 x 300 mm which can be folded in or out easily and individually by foot.

For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0544 1913 00
9442.03	V4A stainless steel	0944 1913 00



 Distances between rest platforms correspond to the areas of use and associated rules and regulations (standards).

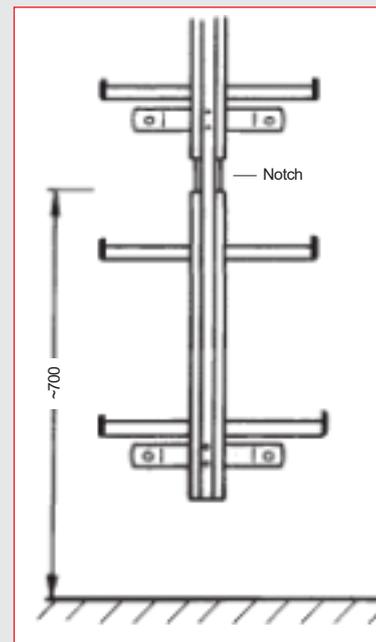
ACCESSORIES for single stile ladders Model 5442.03/9442.03

Notches on the central rail

To insert or remove the fall arrester within a ladder installation.

If the user is not standing on the ground, the movable end stops Model 0529.40.06/0529.40.07 must be mounted on either side of the notch. Please order separately. Measurement from the standing areas up to the notch approx. 0.7 m or as specified.

For ladder model	Material
5442.03	Steel, hot-dip galv.
9442.03	V4A stainless steel



When the fall arrester runs over the notch the user has an increased risk of falling! We therefore recommend that a notch is only located at the bottom end of the ladder for price reasons but that further up the ladder, a safe and easy-to-use removal flap is used.

Ladder guard

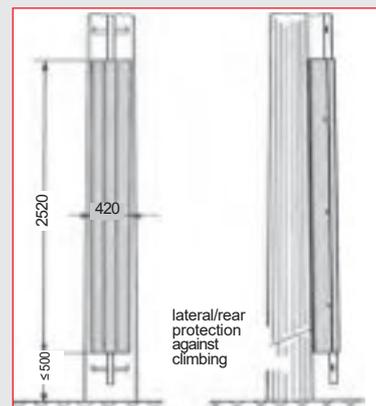
Particularly stable · Easy to use

Extremely effective protection against unauthorised climbing and with metal sheeting that reaches right to the structure. Guard is opened and closed using a sash lock. To be clamped to the ladder.

Assembly by the customer. Basically left swing guard but can be right swing on request. Switching to right swing on site is possible.

Effective length approx. 2.52 m. Includes identification plate.

For ladder model	Material	Order No.
5442.03/9442.03	Anodised aluminium	0544 5200 00



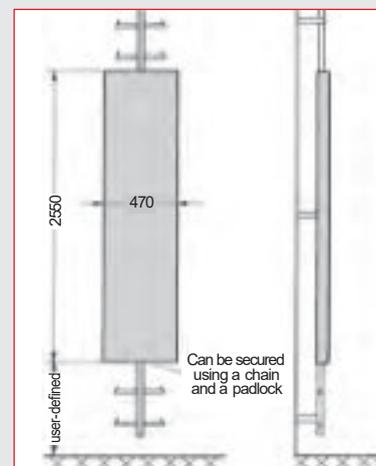
Locking plate

Simple and inexpensive model.

Is simply hooked over a rung and secured using a chain wrapped round a rung with a brass padlock. Effective length approx. 2.55 m.

Includes identification plate.

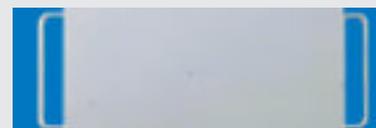
For ladder model	Material	Order No.
5442.03/9442.03	Anodised aluminium	0643 5400 00



Hand grips for locking plate (2 units)

Simplifies mounting and removal of the locking plate. For retrofitting by the customer.

For model	Material	Order No.
0643 5400 00	Anodised aluminium	0643 5410 00





SINGLE STILE LADDERS Model 6433/6434/6437/6438

Material

- Steel/hot-dip galv.
- Stainless steel
- Aluminium
- Fibreglass on enquiry

Typical features

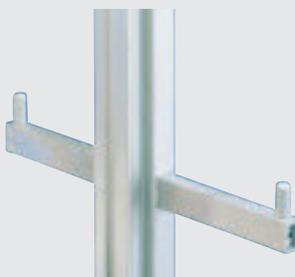
- »» Central stile made of profile

Benefits

- »» Standardised system
- »» Continuous fall arrest system
- »» Extremely resistant to corrosion (anodised ladders)
- »» Attractive design
- »» No welded joints
- »» Reduced risk of icing because the front of rails are closed
- »» Continuous assembly with one screw per wall mount
- »» Easy to repair

Application

- »» Particularly suited to radio and television masts



Ladder with slip protection on the ends of rungs



Ladder with continuous slip protection

Design

Non-anodised or clear anodised aluminium, E6 C-0 DIN 17 611.

Fixing screws, nuts etc. made of V4A stainless steel.

Square aluminium rung profile with slip resistant grooves and rounded limit stops at the sides or with continuous slip protection made of U-profile.

Stile/rung joint pressed.

The central stile is extremely resistant to buckling and simultaneously serves as fall arrest rail.

Depending on the structural circumstances the basic ladders are supplied in individual lengths of up to 5.04 m.

* available in 180mm on enquiry

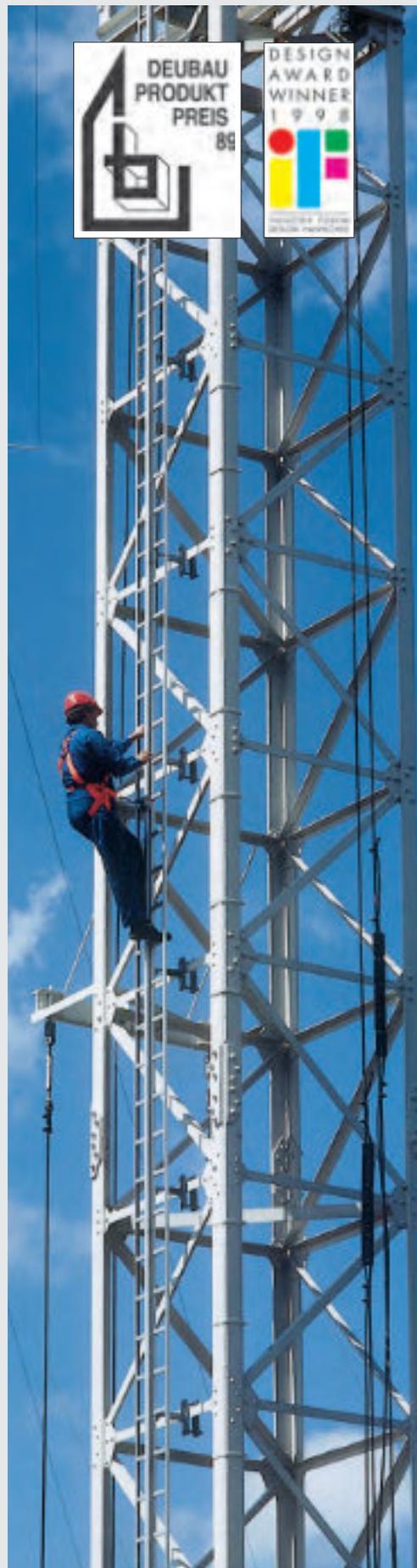
Dimensions

Effective length in grids of	0,28 m bis 5,04 m
Rung distance	280 mm
Outer width of ladder	390 mm
Central stile made of profile	(W x D) 50 x 30 mm
Tubular profile rungs	20 x 30 mm
Width of rung tread	150 mm*

Accessories and special equipment

from page B.12 onwards.
Fixing dowel / identification plate see Page B.26/27.

For suitable fall arresters and safety harnesses see »Personal Protective Equipment«.



Fall arresters and safety harnesses must be used as from a drop of 3 m respectively (depending on the relevant standard, see planning aid)

DIN EN 353-1 · DIN 18 799: 2019
Telekom · SUVA · 0158

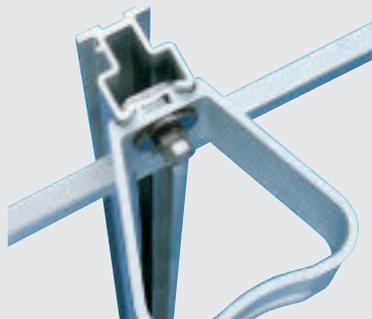
SINGLE STILE LADDERS Model 6433/6434/6437/6438

Basic ladders with slip protection				Aluminium
Size (rungs)	Material	Effective length »L« approx. m	Weight kg/m	Order No.
Acc. to specifications	Aluminium, not anodised	Acc. to specifications	3,7	6433 0000 00
Acc. to specifications	Aluminium, anodised	Acc. to specifications	3,7	6434 0000 00

Basic ladders with continuous slip protection (lateral stile)				Aluminium
Size (rungs)	Material	Effective length »L« approx. m	Weight kg/m	Order No.
Acc. to specifications	Aluminium, not anodised	Acc. to specifications	3,7	6437 0000 00
Acc. to specifications	Aluminium, anodised	Acc. to specifications	3,7	6438 0000 00



Rail profile extremely resistant to buckling

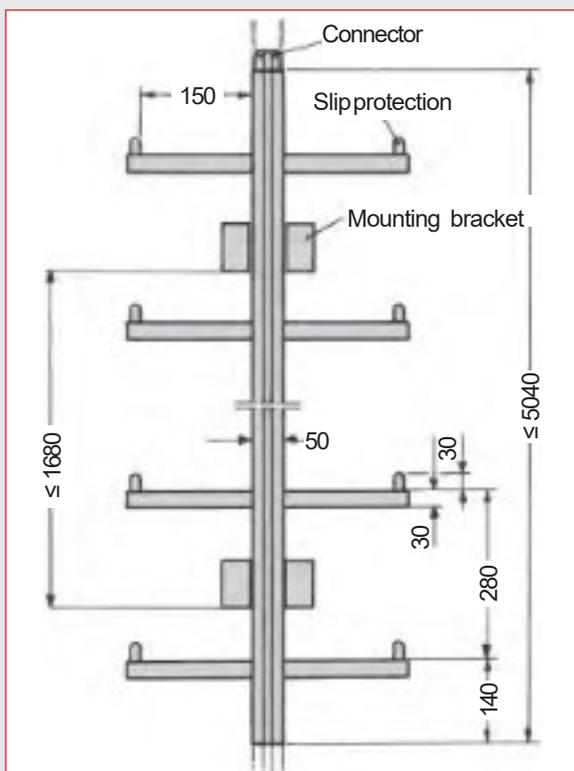


Mounting bracket can be slid to any position – only one fixing screw per bracket!

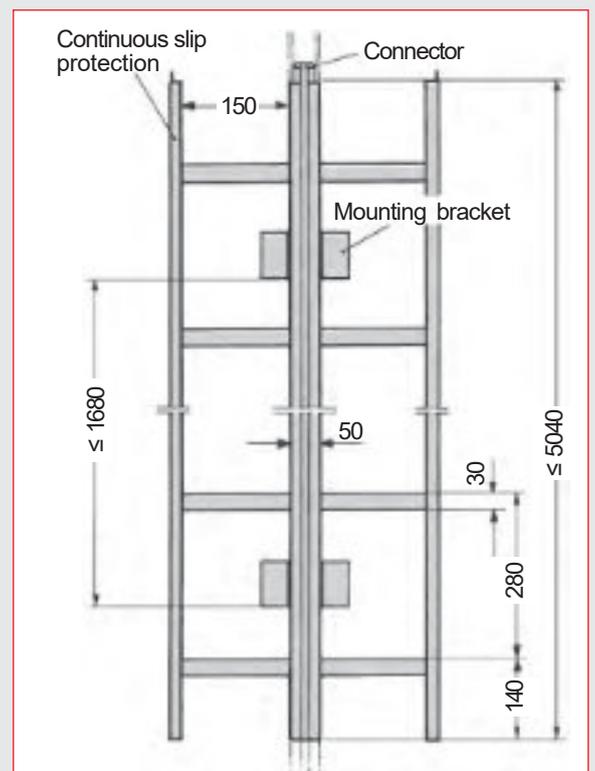


Detail of butt connector

Model 6433/6434



Model 6437/6438



SINGLE STILE LADDERS Model 6433/6434/6437/6438

Mounting bracket

– for masts and flat surfaces

With special fixing screw to fasten the ladder.

The mounting bracket can be mounted in any position in the direction of the rail. Perforations for connection 18 x 70 mm.

Incorrectly drilled holes of up to ±30 mm from the perpendicular can be compensated.

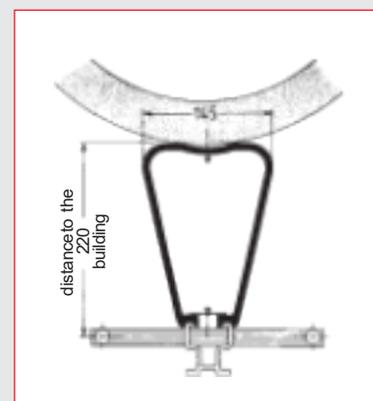
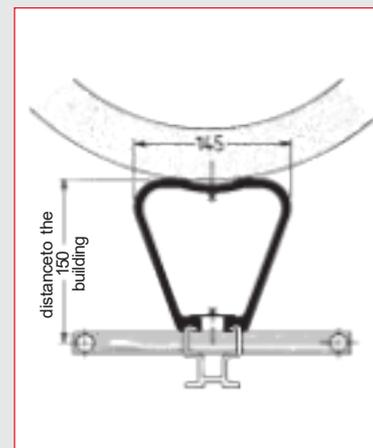
Fastening material to the mast is not included in the scope of delivery.

Distance to structure 150 mm

For ladder model	Material	Order No.
6434/6438	Anodised aluminium	0643 2110 00

Distance to structure 220 mm

For ladder model	Material	Order No.
6433/6434/6437/6438	Anodised aluminium	0643 2210 00



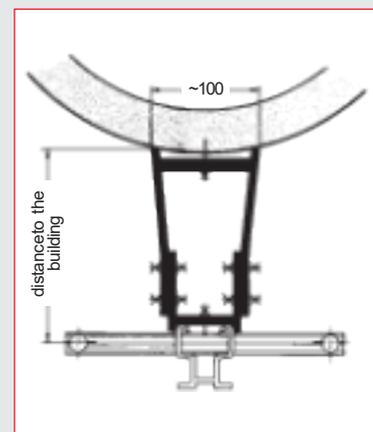
Adjustable mounting brackets

for masts and flat surfaces

Pivotable, therefore particularly suitable for fastening offset bends. For mast $\varnothing \geq 120$ mm.

Distance between structure/centre of rung adjustable.

For ladder model	Material	Distance to structure from/to mm	Order No.
6433 6434 6437 6438	Steel, hot-dip galv.	160 – 250	0643 6201 00
		250 – 340	0643 6202 00
		340 – 430	0643 6203 00
		430 – 520	0643 6204 00
		520 – 610	0643 6205 00
		610 – 700	0643 6206 00
		700 – 790	0643 6207 00
		790 – 880	0643 6208 00
		880 – 970	0643 6209 00



Wall mounts should be positioned at a distance of max. 1.68 m, however at least 2 mounting points should be provided for each ladder section. Ladder sections of < 5.04 m may only be used by one person at one time. For dowels Model 0529.51.09 suitable for concrete see Accessories for single rail ladders P. B.26

Adjustable wall mounts serve to compensate for uneven surfaces. A separate structural certificate is required when a ladder is to be mounted entirely using adjustable wall mounts!

If the distance to the building is more than 500 mm the ladder must reach the ground.

SINGLE STILE LADDERS Model 6433/6434/6437/6438

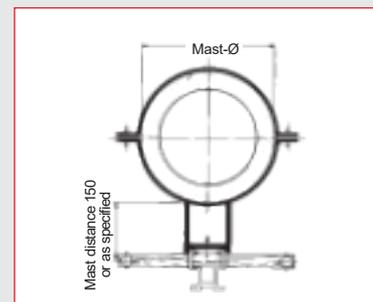
Fastening clamp

for round masts

Please specify mast \varnothing .

Distance to the structure 150 mm or as specified.

For ladder model	Material	Order No.
6433/6434/6437/6438	Steel, hot-dip galv.	0643 63

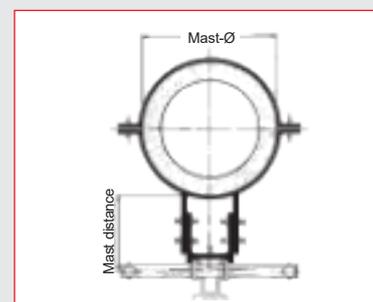


Adjustable fastening clamp

for round masts

Pivotable therefore particularly suitable to fasten offset bends. Please specify mast \varnothing and distance to structure.

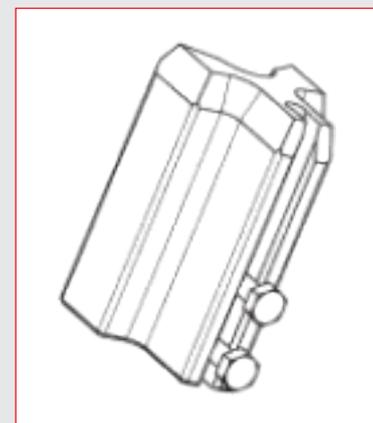
For ladder model	Material	Order No.
6433/6434/6437/6438	Steel, hot-dip galv.	0643 66



Butt connectors for single rail aluminium ladders

with fixing screws for the central rail

For ladder model	Material	Order No.
6433/6434/6437/6438	Aluminium	0643 4800 00



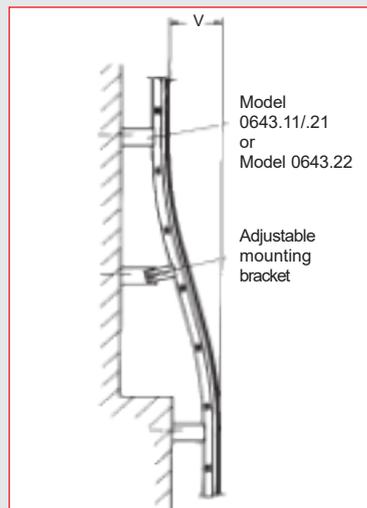
SINGLE STILE LADDERS Model 6433/6434/6437/6438

Offset bend

The ladder parts are bent at rung level. An inward lying bend (see Fig.) is standard.

Other designs are available on enquiry. Please specify the measurement for »V«. Mounted with adjustable wall brackets or clamps.

For ladder model	Material	Measurement »V« mm	Order No.
6433 6434 6437 6438	Aluminium	70 – 105	0643 9900 11
		110 – 270	0643 9900 12
		275 – 325	0643 9900 13
		330 – 485	0643 9900 14
		490 – 500	0643 9900 15

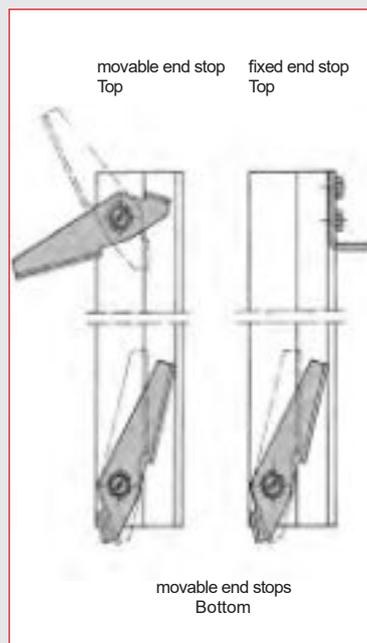


Endstops must be situated at the top and bottom end of a fall arrest rail as well as at any interruption in the rail. They prevent the fall arrester from slipping off the rail. Suitable for a forward inclination of up to 9°. If the ladder is mounted flatter, a removal flap should be used.

Movable end stops

Prevents fall arrester slipping out of the rail unintentionally. Fall automatically into safety position. In accordance with accident prevention regulations end stops must be mounted at the top and bottom ends of the ladder and at all interruptions (also if a pivotable entry aid has been mounted to the top end of the ladder below).

For ladder model	Material	Design	Order No.
6433/6434/6437/6438	V4A stainless steel	not assembled	0643 3901 00
6433/6434/6437/6438	V4A stainless steel	pre-assembled	0643 3902 00



Fixed end stops

Formounting at the top end of the ladder if the fall arrester does not need to be removed.

For ladder model	Material	Design	Order No.
6433/6434/6437/6438	V4A stainless steel	not assembled	0643 4100 00
6433/6434/6437/6438	V4A stainless steel	pre-assembled	0643 4102 00

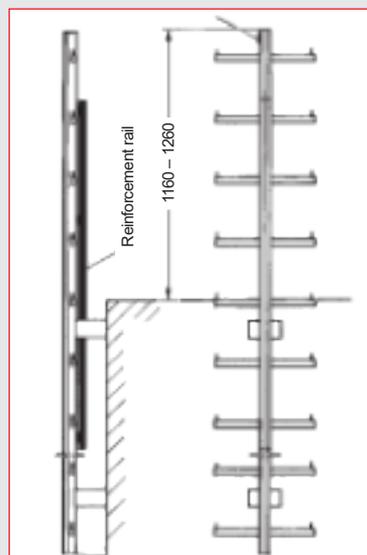
Rigid crossing aid

Permissible for drops of ≤ 5 m where no fall arrester is deployed. Satisfies DIN 18 799: 2009. Ladder must project beyond it by at least 1.10 m to serve as arrest possibility on the entry and exit point.

Reinforcement rail Model 0643.70 must be connected for stability.

Reinforcement rail for rigid crossing aid

For ladder model	Material	Order No.
6433/6334/6437/6438	Steel, hot-dip galv.	0643 7000 00



In accordance with DIN 18799:2019 the connection to the fall arrester must be established or released from a safe standing area. For this reason we recommend a pivotable entry aid Model 0643.67.02 or Model 0643.67.03 for ladder sizes of > 5 m.

SINGLE STILE LADDERS Model 6433/6434/6437/6438

Pivotable entry aids

For safe entry and exit

Satisfies the requirements of DIN 18 799: 2019 and DIN EN ISO 14122-4.

The user, who is hooked onto the fall arrester, unlatches the top section of the ladder and rotates it around the swivel point located on the fixed part of the ladder. Since the user is connected to the pivotable section via the fall arrester, the pivoting movement automatically causes him to move with the pivotable section and leaves him standing safely on the ladder to be climbed. He then releases the fall arrester.

To be fastened to the central rail of the ladder below. No drilling into the structure is necessary. Pre-assembled.

Supporting and pivoting structure made from steel, hot-dip galvanised. Pivoting range approx. 100°.

Effective length approx. 1 m.

The end stop Model 0643.39.01 for the top of the ladder below forms part of the scope of delivery.

To be mounted on site.



For ladder model	Material	Order No.
6434	Steel, hot-dip galv.	0643 6702 00
6438	Steel, hot-dip galv.	0643 6703 00

Notch

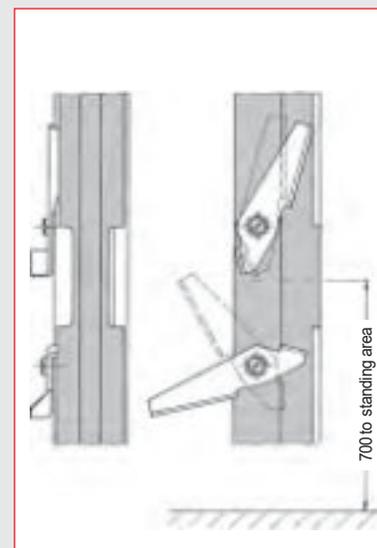
To insert or remove the fall arrest rail within a ladder installation. If the user is not standing on the ground the movable end stops Model 0643.3901 must be mounted on either side of the notch. Please order separately.

Measurement from the standing area up to the notch approx. 0.7 m or as specified.

For ladder model
6433/6434/6437/6438



When the fall arrester runs over the notch the user has an increased risk of falling! We therefore recommend that a notch is only located at the bottom end of the ladder for price reasons but that further up the ladder, a safe and easy-to-use removal flap is used.



Notch with end stops

SINGLE STILE LADDERS Model 6433/6434/6437/6438

Removal flaps

For safe, quick and easy insertion or removal of the fall arrester within a ladder installation.

Uncomplicated design. After unlocking a spring-loaded safety bolt, a piece of central stile is pivoted outwards by approx. 90° in order to remove or insert the fall arrester.

In this position and in all intermediate positions the opening is blocked for successive fall arresters. Also suitable for subsequent installation by the customer. Made of aluminium with fitting made of V4A stainless steel.

Measurement from standing area up to the removal flap approx. 1 m or as specified.



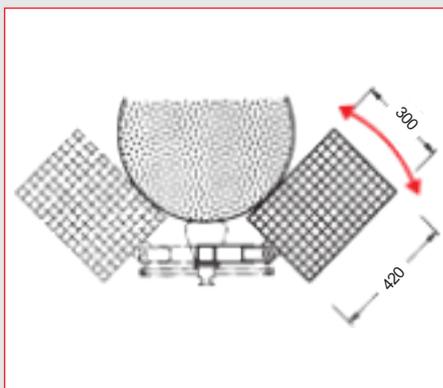
For ladder model 6433/6434/6437/6438	Order No.
Mounted	0643 3402 01
To be mounted by the customer and to replace the factory-mounted removal slider type 0643.35/37/38 (cutout in middle stile - 100 mm)	0643 3402 02
To be mounted by the customer as replacement for removal slider 0643.35.01/3701/38.01 (cutout in middle stile - 220 mm)	0643 3402 03

Working platform

To connect to any point on the central rail.

Mounting on the left, right, parallel to or at an angle to the structure possible. The platform can be dismantled quickly and reassembled in a different place. It can be a substitute for a transfer ring on narrow antenna masts.

Standing area made of grating approx. 300 x 420 m.



For ladder model	Material	Order No.
6433/6434/6437/6438	Steel, hot-dip galv.	0643 3200 00

Working and mounting platform

For connection to any position on the central rail.

Makes it easier to mount standard clamps for example. The clamps can be placed in the desired position and mounted by 2 people from either side at the same time. Standing areas made of aluminium grating each measuring approx. 290 x 600 mm.

Basic structure made of steel, hot-dip galvanised. Consisting of 3 parts and equipped with quick release clamps for fast assembly.

For ladder model 6433/6434/6437/6438



Order No. 0643 3261 00

Design	Material	Order No.
fixed	Steel, hot-dip galv.	0643 3261 00

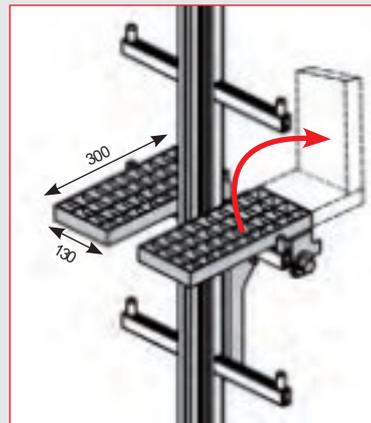
SINGLE STILE LADDERS Model 6433/6434/6437/6438

Folding rest platforms

Consisting of 2 areas for standing each measuring approx. 130 x 300 mm which can be folded in or out easily and individually by foot. In accordance with accident prevention regulations the raised position provides sufficient clearance for feet.

Includes fixing screws, stainless steel fittings.

For ladder model	Material	Order No.
6433/6434/6437/6438	Steel, hot-dip galv.	0643 1913 00



Distances between rest platforms correspond to the areas of use and associated rules and regulations (standards).

Switching points

Using the switching point in the form of a disc the user can move the fall arrester out of the perpendicular fall arrest rail into the horizontal fall arrest rail or vice versa. Please enclose a sketch showing the situation with the enquiry. Made of stainless steel, bronze bushing.

Suitable for fall arresters Model ranges 0529.71, 0529.72 and 0529.74. For horizontal fall arrest see C.12.

For ladder model	Distance to building structure mm	Material	Order No.
6433/6434/6437/6438	150	V4A stainless steel	0643 4615 00
6433/6434/6437/6438	220	V4A stainless steel	0643 4622 00



Model 0643.46.15 – horizontal fall arrest rail connected to perpendicular fall protection ladder via a switching point

Ladder guards

Particularly stable easy to use

The ladder guards provide effective protection against unauthorised access serve as a barrier for danger areas.

Particularly stable and easy to use. With entry protection on the side and back that covers all components of the ladder including the mounting bracket irrespective of the mast diameter. Mounting does not require any drilling into the structure.

Enormous resistance to buckling due to »Sandwich« design.

With stable, double securing and concealed locking rods with concealed brass padlock (more effective and tougher than a cylinder lock).

Basically left swing guard, but right swing on request. Switching to right swing on site is possible.

Metal sheet cladding made of anodised aluminium. Fittings made of stainless steel. Includes identification plate.

Effective length approx. 2.66 m.

It is possible to mount 2 ladder guards on top of each other.

For ladder model	Application	Design	Order No.
6433/6434 6437/6438	pre-assembled	Aluminium, anodised	0643 5100 00
6433/6434 6437/6438	retrofit	Aluminium, anodised	0643 5101 00



SINGLE STILE LADDERS Model 6433/6434/6437/6438

Locking plate – Simple and inexpensive model.

Is simply hooked over a rung and secured using a chain wrapped round a rung and brass padlock. Includes identification plate.

Effective length approx. 2.56 m.

For ladder model	Material	Order No.
6433/6434/6437/6438	Anodised aluminium	0643 5400 00

Hand grips for locking plate (2 units)

Simplifies mounting and removal of the locking plate. For retrofitting by the customer.



For model	Order No.
0643 5400 00	0643 5410 00



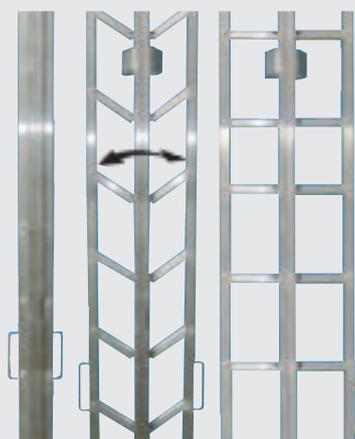
Folding climbing prevention device

The folding climbing prevention device is folded and unfolded in a V shape. It is comfortably integrated in the section of ladder above. This construction dispenses with the need of a locking device for the folding mechanism during climbing. It avoids the danger of crushing in the foot area at the bottom of the ladder.

The fall arrester can be affixed to the rail at the removal point at the bottom of the middle stile. Securing against unauthorised unfolding is accomplished by using a normal commercial padlock. Length approx. 2.80 m.

For ladder model	Material	Order No.
6433/6434/6437/6438	Raw aluminium	6437 1000 10*

* Other sizes and anodised on enquiry

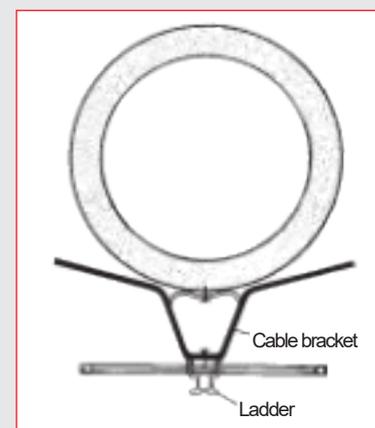


Cable brackets

For connection to the central rail.

Maximum load 8 kg per side/per metre.

For ladder model	Material	Order No.
6433/6334/6437/6438	Anodised aluminium	0643 7502 00
6433/6334/6437/6438	Fixing screw V4A stainless steel (Special hook bolts)	0643 7501 00



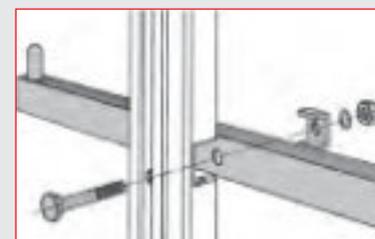
Mounting distance between cable brackets

0 – 8 m max. 0,88 m, 8 – 20 m max 0,56 m, 20 – 100 m max 0,42 m.

Spare rungs

Simple and fast mounting. Fixing material made of V4A stainless steel.

For ladder model	Material	Order No.
6433/6434	Anodised aluminium	0643 5501 00
6431/6432	Anodised aluminium	0643 5504 00





SINGLE STILE LADDERS Mobile – DBGM

Material

Steel/hot-dip galv.
 Stainless steel
 Aluminium
 Fibreglass on enquiry

Typical features

»» Central stile made of  profile

Benefits

- »» Continuous fall arrest system
- »» Short separate elements
- »» Variable length
- »» Flexible location change
- »» Low weight
- »» Simple and fast assembly/dismantling
- »» Fastening without play

Design

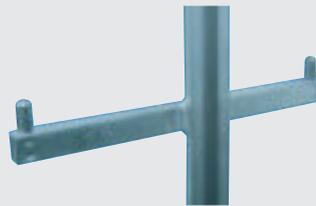
Rungs made of square tubular profile with slip resistant grooves and limit stops at the sides.

The central stile is designed as a fall arrest rail so that when a fall arrester is used, this provides fall protection in accordance with the accident prevention regulations.

Fastening to the mast or tree is done using nylon belts and tensioning ratchets. Each add-on section has a peg at the bottom that engages when plugged onto the top of the respective lower element, two supports each with a tension belt and ratchet as well as one end stop Model 0529.40.03 on the top end.

Application

»» To climb concrete masts, steel masts, wooden masts and trees with a Ø from 80 to 800 mm



The lower ladder section has a flexible foot bracket with spikes at the bottom to adapt to uneven terrain or uneven ground so that the ladder rests safely on soil.

There is no limit to the length of the ladder which depends on the height of the object to be climbed.

Accessories

For suitable fall arresters and safety harnesses see »Personal protective equipment«.



Dimensions

Rung distance	280 mm
Outer ladder width	390 mm
Central stile made of  profile	(W x D) 50 x 30 mm
Tubular profile rungs	(H x W) 30 x 20 mm

SINGLE STILE LADDERS Mobile – DBGM

Basic ladders

					Aluminium
Denomination	Size (rungs)	Material	Effective length »L« approx. m	Weight kg/m	Order No.
Lower ladder	4	Aluminium	1,50	4,4	6442 0100 00
Add-on section	4	Aluminium	1,12	4,4	6442 0401 00
Add-on section	6	Aluminium	1,68	6,0	6442 0601 00

Accessories

Foot bracket with spikes for assembly onto the add-on sections.

Order No.
0644 2100 00



Model 0644.21 foot bracket with spikes

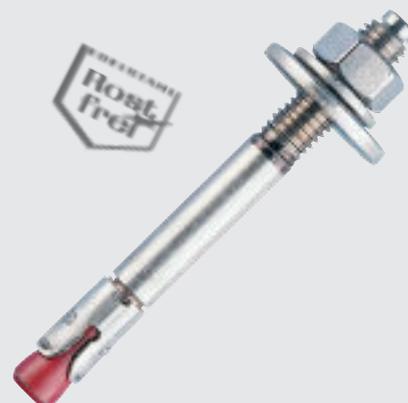


Model 6442 mounting bracket

ACCESSORIES for single stile ladders

Stainless steel stud anchor

- »» For concrete C20 / 25
- »» Approved for uncracked and cracked concrete
- »» Approved by building authorities/according to building legislation
- »» Tested structurally and according to employer liability insurance law in conjunction with our ladders and our fall protection
- »» No special tools are required when moving
- »» Push through mounting
- »» Drill hole diameter = dowel diameter
- »» Load can be applied immediately



Stud anchors

for indoor/outdoor use and in rooms subject to moisture

All parts made of V4A stainless steel.
M 12. With washer Ø 35 x Ø 13 x 4 mm.

Stud anchors

for indoor use

All parts made of steel, hot-dip galvanised.
M 12. With washer Ø 35 x Ø 13 x 4 mm.

Order No.
0529 5109 10

Order No.
0529 5105 10

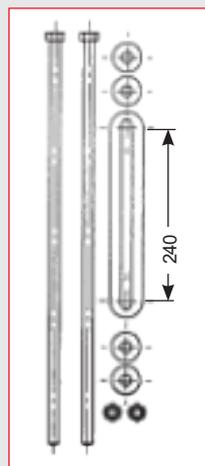
Material	Dowel length approx. mm	Dowel effective length max. mm	Drill hole depth min. mm	Min. thickness of the anchoring base mm	Drill bit nominal Ø mm	Order No.
Stainless steel	115	20	95	140	12	0529 5109 10
Steel, galv.	115	20	95	140	12	0529 5105 10

Stainless steel anchor bolts DGBM

An alternative to dowel fixing where the anchoring base is poor.

Consists of 2 bolts, 1 mounting bracket with slotted hole, 4 washers, 2 nuts. All parts V4A stainless steel, stained.

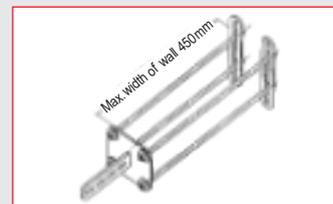
See wall brackets two rail ladders starting page A.38;
wall brackets single rail ladders starting page B.04.



1 set anchor bolts



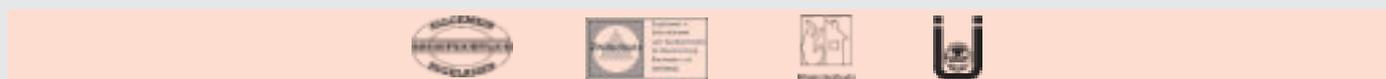
1 set of anchor bolts is required for 1 wall connection element



2 sets of anchor bolts are required for 1 wall connection element

Order No.
0529 5109 01

In the case of mounting the components to surfaces other than concrete, we provide the necessary anchoring forces in the assembly instructions. In such cases please contact a specialist supplier of fixing dowels to ensure that the correct dowel is selected.



ACCESSORIES for single stile ladders

Identification plates

In accordance with DIN 18 799-1:2019, for all fixed ladders on structures it is necessary to have an identification plate.

Additionally, in the case of fixed ladders with fall arrest rail (DIN 18 799-1:2019 and DIN 18 799-2:2019) there is an obligation for identification at every point of exit for single rail and two rail ladders. The identification plate is therefore an integral part of a complete fall arrest system.

This means, for ladders on structures which also have a fall arrest rail, it is necessary to have BOTH identification plates; for ladders with safety cage only 0173.10 or 0174.10 respectively.

Made of easy-to-write-on plastic or film approx. 170 x 120 mm

If the ladder system includes our ladder guard or locking plate, an identification plate in German and English is part of the delivery scope. Other languages on request.

Model with screws 0174.10 / 0176

To be affixed to the structure on site.
Includes 4 plugs and 4 bronze screws.

Model 0174.10: for identification of operator class acc. to DIN 18 799:2019

Model 0176: for identification of every entry and exit of fall arrest system

Adhesive Model 0173.10 / 0175

Made of adhesive film.

If the ladder is equipped with our ladder guard, the identification plate can be affixed to the inside of the door, protected from the elements.

Model 0173.10: for identification of operator class acc. to DIN 18 799:2019

Model 0176: for identification of every entry and exit of the fall arrest system



Model 0175 / Model 0176



Model 0173.10 / Model 0174.10

Material	Design	Order No.
Plastic	Screw on	0176 0000 00
Film	Adhesive	0175 0000 00
Plastic	Screw on	0174 1000 00
Film	Adhesive	0173 1000 00

High build zinc primer

To touch up areas of galvanised parts worked on subsequently.

Ratio of zinc in dry film $\geq 50\%$. Bright, shiny finish. Without aluminium which means it is also suitable for use in potentially explosive areas.

Tin	Order No.
100 ml	0052 9010 00







HACA LEITERN

FALL ARREST SYSTEM



1888 - 2018
130 Years HACA-Leitem

2020

FALL ARREST SYSTEM

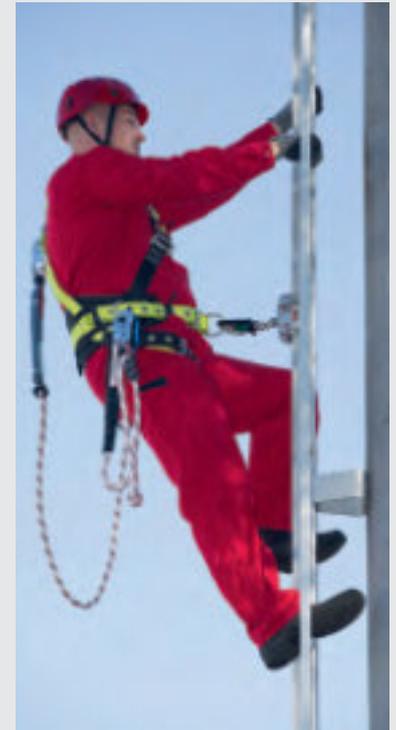
Page	<u>FALL ARREST SYSTEM</u>
C.02	General information and regulations
C.03 – 05	Fall arrest rails made of VarioRail profile 
C.06	Fall arrest rails made of perforated profile 
C.07	Fall arrest rails made of non-perforated profile 
C.08 – 11	Accessories
	<u>HORIZONTAL FALL ARREST SYSTEM</u>
C.12	Fall arrest rails made of T-profile
C.12	<u>IDENTIFICATION PLATES</u>
C.13	<u>STEP IRONS</u>
	<u>FALL ARREST SYSTEM FOR STEP IRONS</u>
C.14	Step irons with singleflight and two flights

FALL PROTECTION General information and regulations

Application

HACA fall arrest systems can be used for all places of work and traffic routes where it is not possible to eliminate the danger of falling using measures such as elevating working platforms, mobile scaffolding or safety nets or where regulations require that PPE be used as climbing protection, e.g.

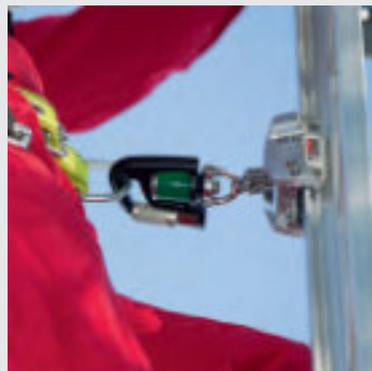
- »» Fixed ladders (where these are not provided as emergency ladders for rescue purposes)
- »» Step irons
- »» Fixed ladders on chimneys
- »» Manhole ladders
- »» Ladders on bulkheads for port and sluice installations
- »» Ship loading equipment
- »» Ladders on pylons of bridge structures
- »» Mast ladders and much more



Remark

Fall arrest rails provide individual fall protection for persons. For correct safety harnesses see »Personal protective equipment«.

In the case of fall arresters we recommend inspection at the HACA factory as trained personnel and the necessary test facilities are available there (see Page E.07).



See »Personal Protective Equipment« for fall arresters



The fall arrest rails have to be positioned in the middle of the ladder and have to be fixed on the first, the last and every sixth rung of the ladder. It can happen, depending on the length of the ladder, that the distance from the last to the penultimate U-bolt is not 6 rungs.

For shorter fall arrest installations the following minimum of attachment points has to be realised:

- 4 attachment points for galvanised rungs 25 x 25 mm made of steel
- 6 attachment points for galvanised rungs 20 x 20 mm made of steel
- 4 attachment points for rungs 25 x 25 mm made of stainless steel
- 4 attachment points for rungs 30 x 30 mm made of aluminium
- 4 attachment points for rungs made of u-profiles
- 4 attachment points for round, completely welded rungs
- 4 attachment points for rungs 28 x 28 mm made of GRP



The operator must take the risks associated with using fixed vertical ladders into consideration. See Section 3 of the German Ordinance on Industrial Health and Safety (Betriebssicherheitsverordnung) and Section 5 of the German Employment Protection Act (ArbSchG).

In accordance with DIN 18799:2019 at least two fall arresters must be provided when a fall arrest system is used.

The mounted fall arrest rail should be viewed as a continuous rail. It must be fastened to the first, last and to every 6th rung.

VARIO-RAIL Fall arrest rails in standard lengths

Material

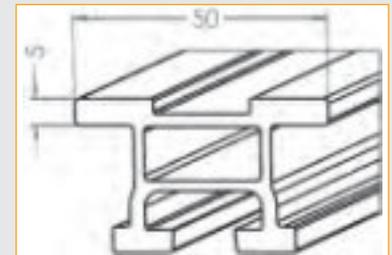
Steel/hot-dip galv.
 Stainless steel
 Aluminium
 Fibreglass on enquiry

Application

- »» Standardised system for all HACA fall arresters with **H** marking and for the climbing aid Clifter in accordance with EN 353-1.
- »» New revised model: The shape of the rail has been revised which has resulted in a reduction of weight of 15 % but with the same degree of stability and running comfort.
- »» Due to a screw channel, the rail can be used on a ladder with any rung distance.
- »» For two rail ladders, the clear width must be at least 35 cm in order to have the mandatory tread surface of 2 x 15 cm.
- »» Due to different types of fastening clamps, the rungs can be 25 x 25 mm up to 30 x 30 mm. Other dimensions on request.
- »» The rail can be used for the repair of existing HACA fall arrest systems.

Benefits

- »» By combining different standard lengths you can reach any total rail length.
- »» The rail can be shortened on site at any time to an intermediate length.
- »» Tolerances along the climbing track can be compensated without any problems due to the screw channel.
- »» Simple assembly due to pre-assembled accessories.
- »» Very good running characteristics.
- »» Is excellently suitable for retrofitting and repairing existing systems (see C.05)



H-profile fall arrest rail

Design

with screw channel, hence variably fixable, non-anodized, can be shortened to the required length. Fall arrest rail connector order-no 0630 8710 00 for the joints included in scope of delivery.

Fall arrest rails in standard lengths		Aluminium
Size	Length approx. m	Order No.
4	1,12	0630 6613 04
7	1,96	0630 6613 07
10	2,80	0630 6613 10
13	3,64	0630 6613 13
21	5,88	0630 6613 21

Weight approx. 1,5 kg/m

Anodised rail on enquiry.

Fall arrest rail in manufactured lengths		Aluminium
Length approx. m	Order No.	
6,00	0630 6210 00	

For suitable fall arresters and harnesses see „Personal Protective Equipment“

Accessories for VARIO-RAIL Fall arrest rails

Fall arrest rail connector with accessories, pre-assembled
For the joints, included in the scope of delivery of fall arrest rails in standard lengths.

Material	Order No.
Aluminium	0630 8710 00



Rail connector 0630 8710 00

Fastening clamps, pre-assembled, 10 units

For fixing the rail to the ladder rungs. Including hammer-head screws and accessories.

Material	for Rungs	Order No.
Aluminium	25 x 25	0630 8540 10
Aluminium	29 x 29	0630 8541 10
Aluminium	30 x 30	0630 8542 10



Fastening clamp 0630 854x xx

Removal flap, pre-assembled

For a safe, fast and easy insertion and removal of the guided type fall arrester within a ladder installation. Distance from standing point to removal flap approx. 1 m or as specified. No end stops are required for this removal flap.

Minimum rung distance 280 mm.

Material	Order No.
Aluminium	0630 3113 00



Removal flap 0630 3103 00

Movable end stops, pre-assembled

Fall automatically into safety position.

Material	Use	Order No.
V4A stainless steel	Top	0630 4017 00
V4A stainless steel	Bottom	0630 4016 00



Movable end stop, top
0630 4007 00



Movable end stop, bottom
0630 4006 00

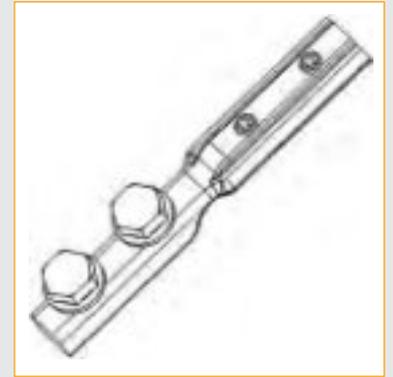
 Endstops must be situated at the top and bottom end of a fall arrest rail as well as at any interruption in the rail. They prevent the fall arrester from slipping off the rail. Suitable for a forward inclination of up to 9°. If the ladder is mounted flatter, a removal flap should be used.

Retrofitting existing systems with HACA VARIO-RAIL

The HACA Vario-Rail is, due to its variable screw channel and the easy to assemble fastening clamps, excellently suitable for retrofitting existing systems.

In this way it is possible to exchange other rail systems, rope systems or safety cages in order to use the advantages of the HACA system:

- highest safety standards and running comfort with HACA MultiSafe fall arresters
- use of the HACA Clifter as mobile climbing aid
- especially when deciding to equip existing ladder systems with climbing aids it is not only very comfortable for the user to change to the HACA system with Vario-Rail and Clifter but also a very economic solution.



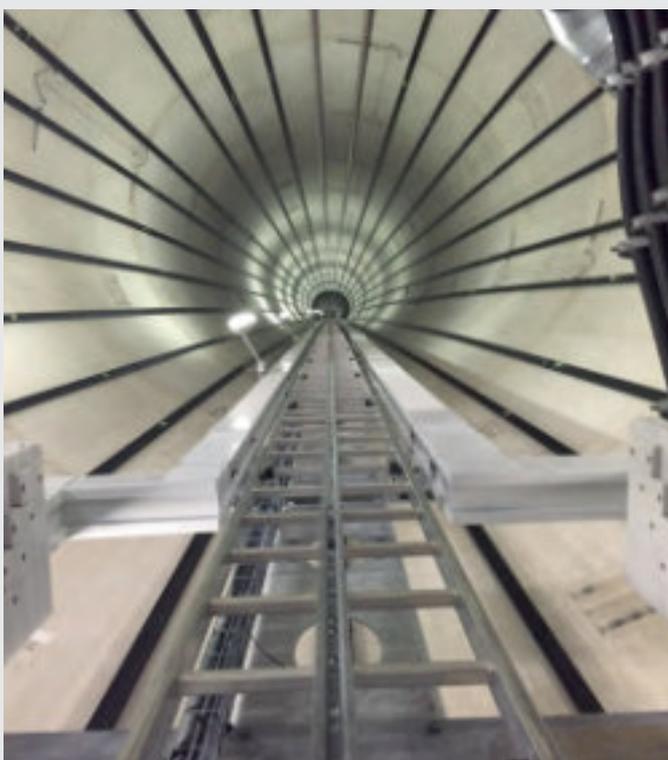
Repairs in HACA systems with Vario-Rail

The process of repairing rails in existing ladder systems is much easier and faster with the HACA Vario-Rail than with HACA cap profile rails made of steel. The aluminium rails can be shortened to the exact requested measurement. Due to the variable screw channel the assembly is possible without having to consider the distance between the rungs. It is no longer necessary to redrill and galvanise the steel rail. With the help of the rail connector 0630 8720 00 the cap profile can be combined with the Vario-Rail. Due to the high grade alloy of the aluminium there is no contact corrosion.

Rail Connector

The rail connector is for combining the HACA Vario-Rail (FI) with the HACA fall arrest rail made of hot zinc dip galvanised steel (FL)

Material	Order No.
Aluminium	0630 8720 00



FALL PROTECTION

Fall arrest rails in standard lengths

Material

Steel/hot-dip galv.
 Stainless steel
 Aluminium
 Fibreglass [enquiry](#)

Application

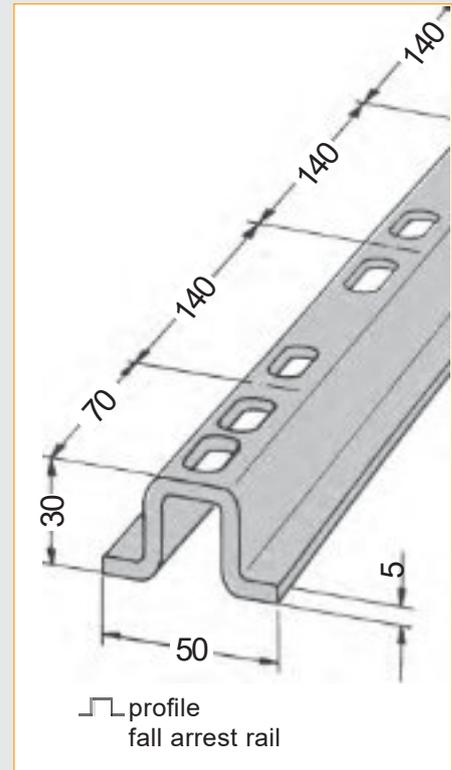
- »» For »fixed ladders« and step irons with standardised distance of 28 cm between rungs/step irons (can also be supplied without perforation for adjustment on site).
- »» For two-rail ladders with a clear width of 35 cm to provide the prescribed tread surfaces of 2 x 15 cm.
- »» For ladders with a maximum rung cross-section of 30 x 30 mm. Fastening with square bracket screws.
- »» If step irons are applied the rail can be fixed with the help of a clamping rail even if the rung distance is not 28cm.
- »» Fall arrest rails for ladders with other rung distances available on enquiry.

Benefits

- »» The combination of different standard lengths means it is possible to assemble any desired overall rail length
- »» Hot-galvanised steel rails can be combined with those made of stainless steel

Design

Ready perforated for bracket screws and end stops. Scope of delivery includes the following: fall arrest rail connector
 Order No. 0529 8710 00, Order No. 0929 8710 00, Order No. 0629 8710 00 for the joints.



Fall arrest rails in standard lengths		Steel, hot-dip galvanised
Size	Length approx. m	Order No.
4	1,12	0529 6603 04
7	1,96	0529 6603 07
10	2,80	0529 6603 10
13	3,64	0529 6603 13
21	5,88	0529 6603 21

Weight approx. 3,4 kg/m

Fall arrest rails in standard lengths		V4A stainless steel
Size	Length approx. m	Order No.
4	1,12	0929 6603 04
7	1,96	0929 6603 07
10	2,80	0929 6603 10
13	3,64	0929 6603 13
21	5,88	0929 6603 21

Weight approx. 3,4 kg/m

Fall arrest rails in standard lengths		Anodised aluminium
Size	Length approx. m	Order No.
10	2,80	0629 6603 10

Weight approx. 1,3 kg/m

FALL PROTECTION Fall arrest rails in manufactured lengths

Material

Steel/hot-dip galv.
 Stainless steel
 Aluminium
 Fibreglass [enquiry](#)

Application

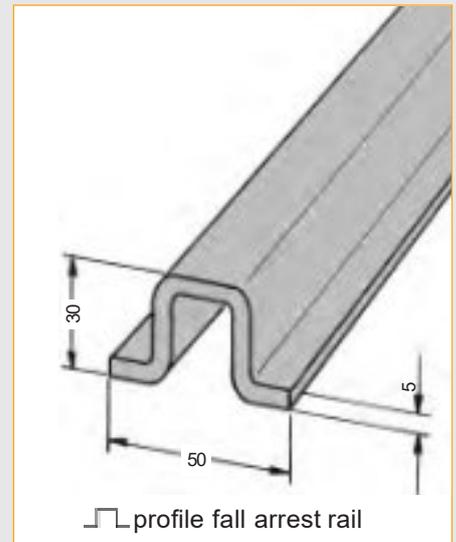
»»» For ladders with a rung distance other than 28 cm

Design

Length of bars approx. 6 m, untreated (non-galvanised, unstained, non-anodised) and non-perforated. Still to be finished by the customer, i.e. ends cut and chamfered, perforated, galvanised, anodised, stained etc.

Without accessories.

Carry out surface finishing before mounting.



Fall arrest rails in manufactured lengths		Steel, non-galvanised
Fall arrest rail		Order No.
Non-perforated		0529 6200 00

Fall arrest rails in manufactured lengths		V4A stainless steel, unstained
Fall arrest rail		Order No.
Non-perforated		0929 6200 00

Fall arrest rails in manufactured lengths		Non-anodised aluminium
Fall arrest rail		Order No.
Non-perforated		0629 6200 00

For suitable fall arresters and for safety harnesses see »Personal Protective Equipment«.



The fall arrest rails have to be positioned in the middle of the ladder and have to be fixed on the first, the last and every sixth rung of the ladder. It can happen, depending on the length of the ladder, that the distance from the last to the penultimate U-bolt is not 6 rungs.

For shorter fall arrest installations the following minimum of attachment points has to be realised:

- 4 attachment points for galvanised rungs 25 x 25 mm made of steel
- 6 attachment points for galvanised rungs 20 x 20 mm made of steel
- 4 attachment points for rungs 25 x 25 mm made of stainless steel
- 4 attachment points for rungs 30 x 30 mm made of aluminium
- 4 attachment points for rungs made of u-profiles
- 4 attachment points for round, completely welded rungs
- 4 attachment points for rungs 28 x 28 mm made of GRP



Where fall arrest rails are retrofitted to existing ladder systems or step irons, the respective technical regulations must be heeded to in case of doubt or an engineering company be consulted for example when the cross-section is too low, when the joints rung/stile are not load-bearing, in the case of corrosion or poor anchoring to the structure etc.

ACCESSORIES for fall arrest rails

Bracket screws

To fasten rails to ladder rungs and for joints.

Bracket screws – squared

For square ladder rungs up to 30 x 30 mm.

Material	Order No.
Steel, hot-dip galv.	0529 8540 00
V4A stainless steel	0929 8540 00



Bracket screws, squared, Model 0529.85.40

For square aluminium ladder rungs up to 30 x 30 mm (includes spacer sleeves).

Material	Order No.
Steel, hot-dip galv.	0529 8544 00
V4A stainless steel	0929 8544 00



Bracket screws, squared, Model 0529.85.44

For U-profile ladder rungs up to 25 x 25 mm (includes 1 spacer sleeve).

Material	Order No.
Steel, hot-dip galv.	0529 8543 00
V4A stainless steel	0929 8543 00



Bracket screws, squared, Model 0529.85.43

Fall arrest rail connector with bracket screws

For joints. Part of the scope of delivery for fall arrest rails in standard lengths.

Material	Order No.
Steel, hot-dip galv.	0529 8710 00
Aluminium	0629 8710 00
V4A stainless steel	0929 8710 00

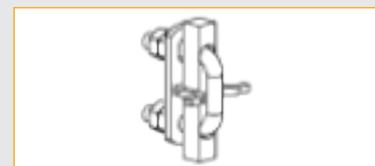


Fall arrest rail connector Model 0529.87.10

Fall arrest rail connector

For compensating rail joints with gaps of 6 – 10 mm.

Material	Order No.
Steel, hot-dip galv.	0529 8730 00



Fall arrest rail connector Model 0529.87.30

Clamping rails

For round ladder rungs and step irons up to Ø20 – 25 mm. Includes special fixing screws.

Material	Order No.
Steel, hot-dip galv.	0544 2400 00
V4A stainless steel	0944 2400 00



Clamping rail Model 0544.24

ACCESSORIES for fall arrest rails

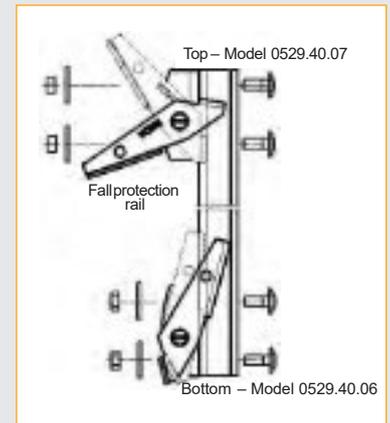
Movable end stops

Fall automatically into safety position.

For ladder model	Application	Material	Order No.
5442.03/9442.03 & Fall arrest rails	Top	V4A steel	0529 4007 00
	Bottom	V4A steel	0529 4006 00



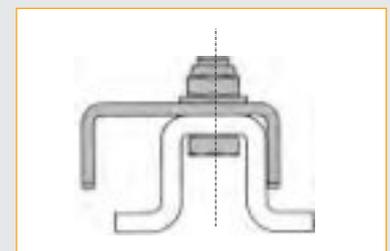
Endstops must be situated at the top and bottom end of a fall arrest rail as well as at any interruption in the rail. They prevent the fall arrester from slipping off the rail. Suitable for a forward inclination of up to 9°. If the ladder is mounted flatter, a removal flap should be used.



Fixed end stop

To be attached to the top of the ladder if the fall arrester does not need to be removed.

For ladder model	Application	Material	Order No.
5442.03/9442.03 Fall arrest rails	Top	V4A stainless steel	0544 4100 00



The following also form part of a complete fall arrest system:

Fall arresters (Suitable fall arresters are model series 0529.60 and 0529.74) and safety harnesses (see »Personal Protective Equipment«)

Fixing dowels (S.B.26) · Identification plates (S.C.12)

Removal flap

For safe, quick and easy insertion or removal of the fall arrester within a ladder installation.

Measurement from standing area up to the removal flap approx. 1 m or as specified.

No end stops are required for this removal flap.

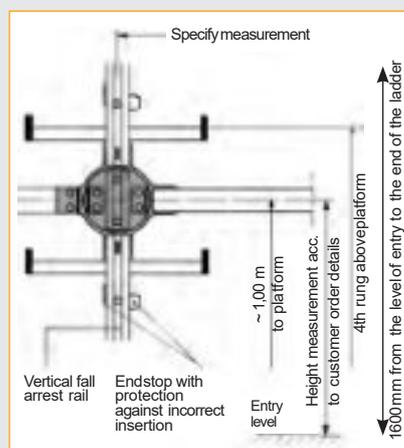
For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0544 3103 00
9442.03	V4A stainless steel	0944 3103 00



Switching point

Using the switching point in form of a disc the user can move the fall arrester out of the perpendicular fall arrest rail or single rail fall arrest ladder into horizontal fall arrest rails or vice versa.

Please enclose a sketch illustrating the situation with the request.



Sketch of situation



Switching point Model 0929.46. Horizontal fall arrest rail (here one-sided, left) connected to perpendicular fall arrest rail via a switching point

Order No.	wall distance
0929 4600 00	

ACCESSORIES for fall arrest rails

Clip-on entry aids DBGM

For entering and exiting covered manholes safely
 The clip-on entry aid can be removed, e.g. in order to use it with other fall arrest systems. The clip-on entry aid consists of a fall arrest rail with 2 pairs of hand grips and an additional rung to make it easier to climb down to the first rung of a shaft ladder which may be very low due to a dirt trap. The entry aid has a lift lock.

Mounted end stop Model 0529.40.07 at the top of the clip-on entry aid and an end stop Model 0529.40.07 for the customer to mount to the top of the ladder below.

Weight approx. 7.8 kg. Effective length approx. 1.20 m.

For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0529 6503 00
9442.03	V4A stainless steel	0929 6503 00

Weight approx. 15 kg. Effective length 1,60 m. In case of use an additional wall bracket must be applied.

For ladder model	Material	Order No.
5442.03	Steel, hot-dip galv.	0529 6504 00
9442.03	V4A stainless steel	0929 6504 00



A counter bracket Model 0929.84.04 must be mounted at the top end of every fall arrest system.

Counter bracket for clip-on entry aids

A single clip-on entry aid can be carried in the vehicle and used for any number of manhole ladders. A counter bracket must be mounted on each ladder for this purpose. All parts made of V4A stainless steel. With additional parts to fasten either square rungs 25 x 25 mm, U-profile rungs 25 x 25 mm or round rungs up to Ø 25 mm.

For ladder model	Material	Order No.
0529 65.03 0929 65.03	V4A stainless steel	0929 8404 00
0529 65.04 0929 65.04	V4A stainless steel	0929 8405 00



When using the counter bracket an additional movable bottom end stop (order no 05294007 00) and an additional squared bracket for the 3rd rung from the top has to be assembled to the fall arrest rail of the fixed ladder (not included).

360° Counter bracket for clip-on entry aids

Like the counter bracket. However the clip-on entry aid can be rotated left or right up to 180°. This makes entry and exit much easier even in the tightest of spaces.

For ladder model	Material	Order No.
0529 6503	V4A stainless steel	0929 8406 00
0929 6503	V4A stainless steel	0929 8406 00



When using the counter bracket an additional movable bottom end stop (order no 0529 4007 00) has to be assembled (not included).

ACCESSORIES for fall arrest rails

Pivotable entry aids

For safe entry and exit

Satisfies the requirements of DIN 18799: 2019 and DIN EN ISO 14122-4.

Hooked up with the fall arrester, the user, who has reached the top end of the ladder, unlatches this section of the fall arrest rail and rotates it inwards. Since the user is connected to the section of fall arrest rail via the fall arrester, the pivoting movement automatically causes him to move with the pivotable section and leaves him standing safely on the ladder or steps. He then releases the fall arrester. Pre-assembled. Customer has only to connect to the ladder hook with two screws.

The ladder must have two stile hoops. All rules and regulations stipulate that a platform must be mounted. Model 0529.23 (see page A.65).

In addition to the end stop on the entry aid, an end stop order no. 0529 4007 00 has to be assembled to the upper end of the ladder (not part of the delivery).

The pivotable entry aid is part of a fall arrest system according to DIN EN 353-1.



For ladder model	Material	Order No.
For ladders with a clear width of 366 mm		
5282/5287	Steel, hot-dip galv.	0528 6700 00
9282/9287	V4A stainless steel	0928 6700 00
For ladders with a clear width of 402 mm		
5292/5292.01	Steel, hot-dip galv.	0529 6700 00
9292/9292.01	V4A stainless steel	0929 6700 00
For ladders with a clear width of 502 mm		
5292/5292.01	Steel, hot-dip galv.	0529 6702 00
9292/9292.01	V4A stainless steel	0929 6702 00

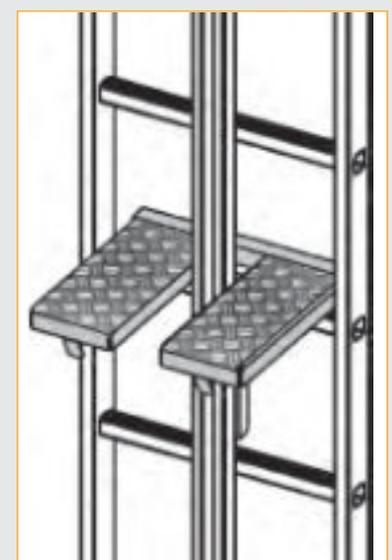
One-piece rest platform, for wind energy

Steps made of corrugated sheet metal

Foldable, made of hot-dip galvanised steel.

From inner width 400 mm, can only be assembled to the HACA fall arrest rail. Can be folded in or out by foot.

for HACA rail type		Order No.
	Steel	0529 1904 00
	VarioRail	0630 1904 00
	single rail, steel	0544 1904 00



For the assembly to the rung, on which the rest platform is placed, an additional U-bolt for type 0529.19.04 and an additional bracket for type 0630.19.04 is required. These are not part of the scope of delivery, please order separately.

ACCESSORIES Horizontal

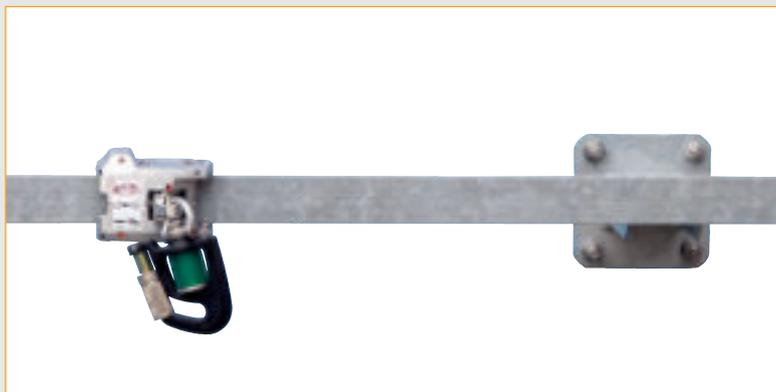
Horizontal fall arrest system

The horizontal fall arrest rails are usually used in conjunction with fixed single rail fall arrest ladders or fixed ladders with fall arrest rails and corresponding switching points to provide continuous fall arrest for ladders with more than one section. They may also be used to secure gangways etc.

Made of T-steel. Readyperforated at intervals of 700 mm. It is fitted approx. 1 m above standing area. Bracket screws Model 0529.8601/0929.8601 for joints are included with delivery.

The distance between fall arrest rail/user is approx. 300 mm.

Only to be used in combination with fall arresters model **0529.74.00** and **0529.74.30**.



Horizontal fall arrest rail with fall arrester, movable end stop, rail mounting bracket and harness

Material
Steel, hot-dip galv.
V4A stainless steel

Identification plates

In accordance with DIN 18 799-1:2019, for all fixed ladders on structures it is necessary to have an identification plate.

Additionally, in the case of fixed ladders with fall arrest rail (DIN 18 799-1:2019 and DIN 18 799-2:2019) there is an obligation for identification at every point of exit for single rail and two rail ladders. The identification plate is therefore an integral part of a complete fall arrest system.

This means, for ladders on structures which also have a fall arrest rail, it is necessary to have BOTH identification plates; for ladders with safety cage only 0173.10 or 0174.10 respectively.

Made of easy-to-write-on plastic or film approx. 170 x 120 mm

If the ladder system includes our ladder guard or locking plate, an identification plate in German and English is part of the delivery scope. Other languages on request.



Model 0175 / Model 0176

Model with screws 0174.10 / 0176

To be affixed to the structure on site. Includes 4 plugs and 4 bronze screws.

Model 0174.10: for identification of operator class acc. to DIN 18 799:2019

Model 0176: for identification of every entry and exit of fall arrest system



Model 0173.10 / Model 0174.10

Adhesive Model 0173.10 / 0175

Made of adhesive film.

If the ladder is equipped with our ladder guard, the identification plate can be affixed to the inside of the door, protected from the elements.

Model 0173.10: for identification of operator class acc. to DIN 18 799:2019

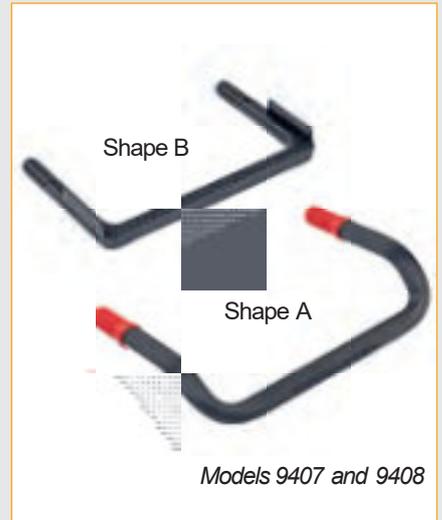
Model 0176: for identification of every entry and exit of the fall arrest system

Material	Design	Order No.
Plastic	Screw on	0176 0000 00
Film	Adhesive	0175 0000 00
Plastic	Screw on	0174 1000 00
Film	Adhesive	0173 1000 00

STEP IRONS with coating

Benefits

- » Resistant to corrosion due to all-over coating with polyethylene
- » Very simple assembly: drill holes, hammer step irons in, done (can also be cast or concreted in)
- » Immediately accessible with dry assembly
- » Antistatic
- » Temperature resistant at temperatures from -60 to $+110$ C°
- » Effective lateral slip protection due to 40 mm high right-angled upstand
- » Slip resistant tread
- » Step iron ends have an effective tothing for all common anchorages
- » Anvil-like reinforced material (for hammering in with mallet)
- » Suitable dimensions for assembling a fall arrest system



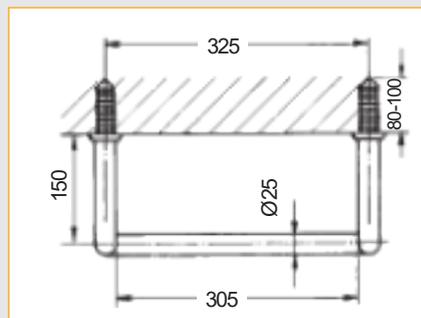
Step irons (Shape B)

with steel core tube

Colour: black

Order No.

9407 0000 00



Accessories and special equipment

Retractable hand grip and pivotable rest platform: see accessories for two rail ladders.

Drill template for step irons



For accurate drilling.

For adjustable distances between step irons of 250 to 330 mm. Recommended step iron intervals of 280 mm. zinc plated.

Order No. 0940 7000 00
€ per unit 266,00

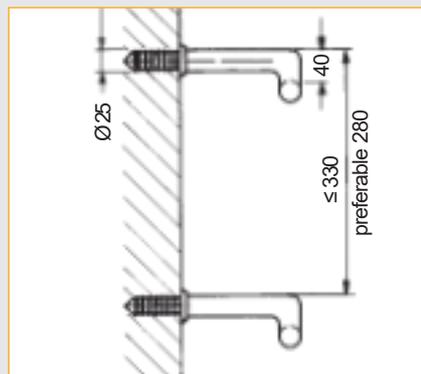
Step irons (Shape A)

with V4A stainless steel core tube

Colour: black

Order No.

9408 0000 00



Information on regulations

Step iron flights with a drop of over 5 m must have mechanisms to protect people from falling. It is recommended that a fall arrest system is mounted here. An entry aid must be present at the entry point.

Step iron flights must have rest platforms at maximum intervals of 10 m. The distance from the shaft edge to the top step iron should be the same as the distance between the remaining step irons – with the following exceptions:

- a) For shafts with an entry opening of 650 mm, the maximum distance is 500 mm
- b) With height compensating rings up to 240 mm the distance may also be greater.



FALL ARREST SYSTEM for step irons

HACA fall arrest systems may be used to secure manholes with a single flight of step irons as well as those with two flights.

Manholes with a single flight of step irons

The fall arrest rail should be mounted centrally. The remaining tread areas must each be ≥ 85 mm, and step irons must be ≥ 250 mm wide. Fall arrest rails positioned on the side are not recommended due to the unfavourable load placed on the user during a fall. In addition there will be unfavourable ergonomic conditions when climbing because the side grommets on the harness are not approved for hooking to the fall arrester.

Manholes with two flights of step irons

The clear distance between the step irons must be ≥ 90 mm.

Fastening the fall arrest rails centrally on the step irons

Fall arrester model series 0529.60 (see »Personal Protective Equipment«), fall arrest rails (P. C.03–07), clip-on entry aid (pg. C.10). A counter bracket (pg. C.10), Order No. 0929 8404 00 must be mounted above the top step iron – please order separately.

Fastening the fall arrest rails between on the step irons

Fall arrester model series 0529.60 (see »Personal Protective Equipment«), fall arrest rails (pg. C.03–07), clip-on entry aid (pg. C.10), wall mounting brackets (pg. B.04). A wall mounting bracket Order No. 0544 1200 00/0944 1200 00 and a counter bracket Order No. 0929 8404 (pg. C.10) must be mounted above the top step iron – please order both separately.

Clamping rails for step irons $\varnothing 20 - 25$ mm

The structural design of clamping rails makes it possible to connect the fall arrest rails at any desired distance between step irons.

Includes special fixing screws.

Material	Order No.
Steel, hot-dip galv.	0544 2400 00
V4A stainless steel	0944 2400 00

Wall mounts for round and flat structures

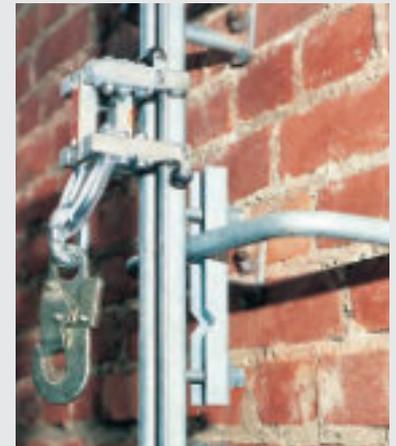
Distance between structure/front edge of the fall arrest rail approx. 150 mm. Includes bracket screw for fixing to the fall arrest rail

Material	Order No.
Steel, hot-dip galv.	0544 1210 00
V4A stainless steel	0944 1210 00

Adjustable wall mounts for straight shaft walls

Required as top wall mounting bracket when using a clip-on entry aid. Distance between structure/front edge of the fall arrest rail approx. 195 mm. Includes bracket screw for fixing to the fall arrest rail.

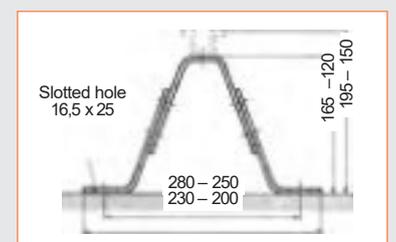
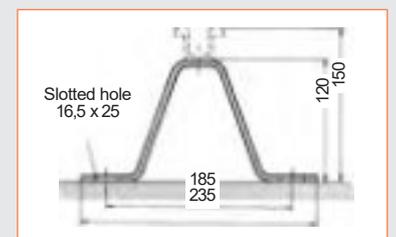
Material	Order No.
Steel, hot-dip galv.	0544 1310 00
V4A stainless steel	0944 1310 00



Fastening the fall arrest rails in the middle of the step irons



Fastening the fall arrest rails between the step irons



Where fall arrest rails are retrofitted to existing ladder systems or step irons, the respective technical regulations must be heeded to in case of doubt or an engineering company be consulted for example when the cross-section is too low, when the joints rung/stile are not load-bearing, in the case of corrosion or poor anchoring to the structure etc.



HACA LEITERN

CLIFTER



1888 - 2018
130 Years HACA-Leitern

2020

CLIFTER Makes climbing easier!

- »»» Makes it easier to climb masts, towers etc. using HACA fall arrest systems
- »»» Can be used on all HACA fall arrest systems 
- »»» With safety shutdown
- »»» Can only be used in conjunction with HACA fall arresters (Model Series 0529.71, 0529.72, 0529.73 and 0529.74)
- »»» Less effort involved in climbing
- »»» Simple to use
- »»» Specially designed for great heights
- »»» Can be removed at any point
- »»» Mobile, can be carried on maintenance vehicle (1 device for several sites)
- »»» Easy to maintain
- »»» Supplied in aluminium carrying case
- »»» Includes charging device and 2 rechargeable batteries



Model 7030.01



CC 0158

Increased or too high physical stress influence the performance of employees and hence the success of the company. They often lead to diseases with absence, interruption of operations and thus to additional costs.

Activities with higher exertions are often combined with working places difficult to access, e.g. ascending cranes, wind energy plants or overhead line towers. They strain the entire body and require good physical conditions.

Reduce your employees' physical strain and reduce the hazard with this technical device.

DGUV information 208-033(203)

CLIFTER Makes climbing easier!

Technical data

Traction can be switched from 50 to 70 kg

Travel 400 m under load

Speed max. 30 m/min.

Replaceable lithium-ion rechargeable battery



You can find a film for operators on our homepage!

Included in scope of delivery	Order No.
HACA Clifter, rechargeable batteries	7030 0100 00

Accessories	Order No.
Spare battery	0703 0100 00
Charger	0703 0200 00
Aluminium case	0703 0400 00
Inspection	0703 2100 00



In order to prevent down time we recommend an inspection of the Clifter in our plant **once a year**.





HACA LEITERN

PERSONAL
PROTECTIVE EQUIPMENT



1888 - 2018
130 Years HACA-Leitern

2020

PERSONAL PROTECTIVE EQUIPMENT

Seite	<u>FALLSCHUTZLÄUFER</u>
E.01	Application information, safety information
E.02	Typ 0529.74
E.05	Typ 0529.74.50
E.06	Typ 0529.60.01
E.07	Typ 0529.80
E.08	Typ 0529.74.30
E.10	Inspection
E.11	Accessories

SAFETY HARNESS, ROPES AND ACCESSORIES

E.14	Full body harness
E.16	Safety ropes, loop slings, equipment bag

Costum
made

Production after order
cannot be returned.



Application information

Fall arrest systems are only approved for ascending and descending.

The user must use additional securing mechanisms for other activities, also when in a rest position, where the position of the body differs from the one when ascending and descending.

Per fall arrester only 1 person may be attached. Only a safety harness according to EN361 with front attachment point may be used attaching the person to the fall arrester. The HACAfall arrester may only be used with original HACAfall arrest rails. Other combinations are not allowed. Combining and using a fall arrester or fall arrest rails from different manufacturers may influence their function. The lead to a malfunction of the fall arrest system and hence endangers the user. In such cases the Lorenz Hasenbach GmbH u. Co. KG denies liability.

A **risk assessment** according to the national rules and laws of the country of application has to be done. The choice of the harness depends on the work to be done. HACAfall arrest systems are made for ascending and descending.

The safety harness must be equipped with the attachment points required for the intended use. These are marked with a capital A. The manufacturer's instruction for use of the harness has to be observed.

Only safety harnesses without flexible webbing may be used.

This applies both to using the chest attachment point and the abdominal attachment point for climbing.

Fall arrester Model 0529.74

HACA MultiSafe

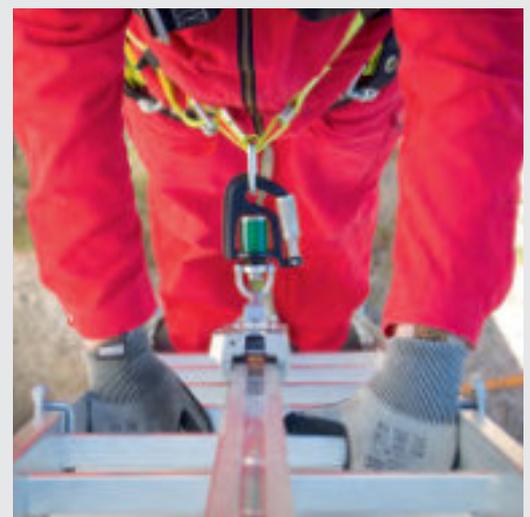
Benefits

- »»Excellent running properties
- »»Has 3 catching functions:
 1. Catching function: In case of vertical fall the 1. catching function responds
 2. Catching function: In case of falling backwards (fall-back and sit-back) the device catches due to an automatic draught limiter
 3. Catching function: A centrifugal brake releases a braking impulse at high speed and brings catching function 1 into action
- »»Approved for persons from 40 kg to 150 kg
- »»The value of 5 kN is 17 % below the maximum impact force with a 100 kg steel dummy, claimed in EN353-1
- »»Extreme safety is provided as the guided type fall arrester can be used right after a fall. Consequently a second fall is also safe
- »»The snap-hook has a swivel
- »»The new karabiner installed since the end of 2016 has a weight saving of ~ 10 % and has a larger opening
Details see E.06
- »»Very smooth-running, hence no exhaustion and only low level of strain when climbing
- »»Very good running properties due to roll guides at each side and long axis distance
- »»Contact to the guiding rail via ball-bearing rolls
- »»Correct insertion into the fall arrest rail is compulsory and therefore guaranteed
- »»Arms and legs are relieved when climbing
- »»Can be used up to 15° layback and 20° lateral position
- »»Can additionally be used for horizontal fall arrest rails

Application

- »»Can be used on all kind of HACA fall protection profiles

- »»For radius min. 750 mm
- »»CE certified as climbing protection according to DIN EN353-1: 2018, also tested according to ANSI/ASSE2359.1-2007 and CSA Z259.2.4-15.



3-fache Sicherheit durch 3 unterschiedliche Fangfunktionen.

Material	Order No.
Aluminium, stainless steel	0529 7400 00



You can find a film for operators on our homepage!

HACA MultiSafe

Properties type
Typ 0529.74, 74.30 und 74.50

Handling and function

The guided type fall arrester has three independent-ly working catching functions (triple redundant). Each reacts to different triggers, which are caused by a potential danger for the user and makes the guided type fall arrester stop. If the horizontal or speed-dependent catching function is primary activated the vertical catching function will always be activated as second redundancy!

1. Catching function: vertical catching function

In case of a fall the user, being attached to the harness by the snap-hook, moves the brake eccentric within the guided type fall arrester. This makes the guided type fall arrester jam like a tong to the rail within few millimetres. Activation and stop of the guided type fall arrester do not happen abruptly, as e.g. in case of fall arrest systems having safety crimping or safety rungs at certain intervals on the fall arrest rail. This guided type fall arrester activates and stops delayed. This reduces the impact load on the falling person. This function is again available without limitation immediately after relieving the guided type fall arrester and the "opening of the tong".

In this moment the guided type fall arrester is again ready for use with all protective systems without any delay.

2. Catching function: horizontal draught limiter

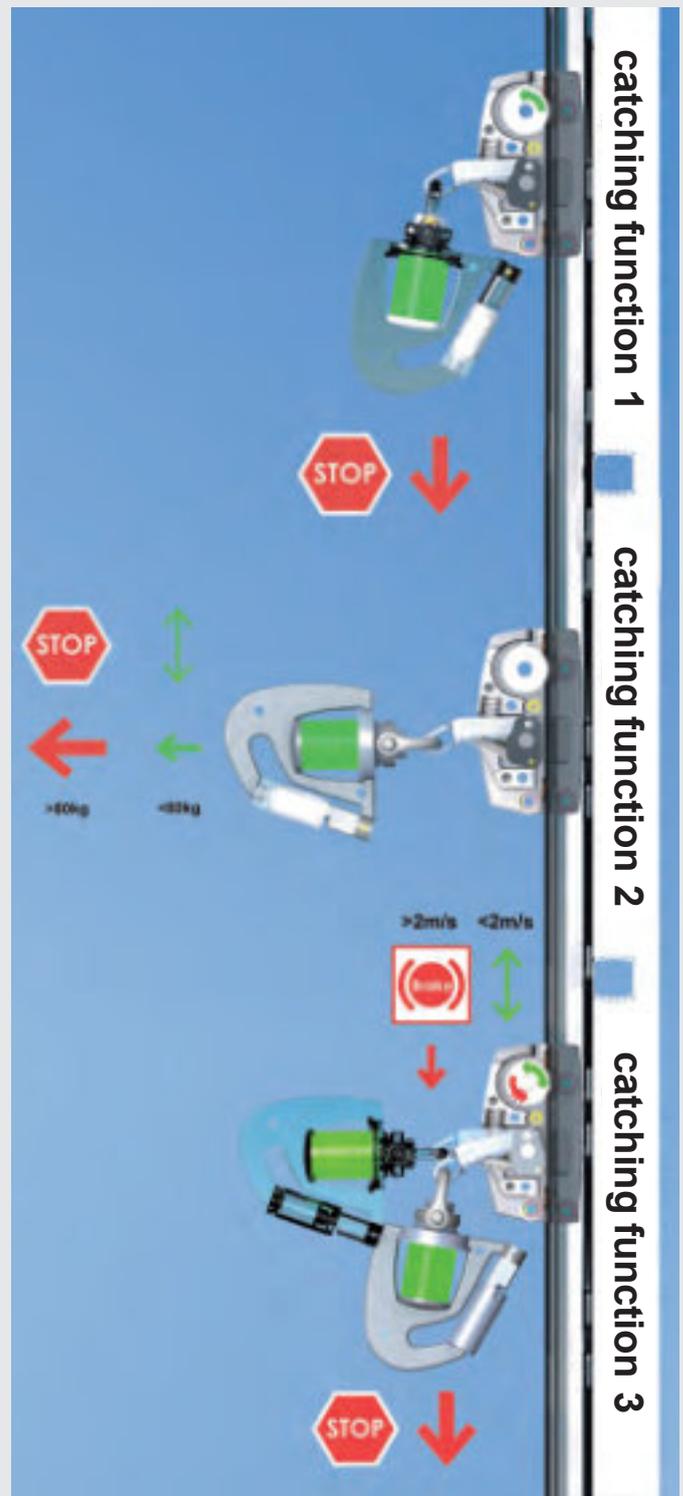
The draught limiter activates automatically and makes the arrester speed down when the user is in danger of falling backwards; this keeps the user from rolling over. The harness for this application must have the properties being described on page E.01. From this position the user can come back to the climbing position at any time. After relieving the guided type fall arrester all safety devices tighten again and are immediately again available without limitation.

In this moment the guided type fall arrester is again ready for use with all protective systems without any delay.

3. Catching function: speed-dependent catching

With the help of a friction wheel the speed of the guided type fall arrester is checked constantly during its use. If the guided type fall arrester operates at a speed higher than normal climbing speed, the guided type fall arrester is decelerated automatically. This deceleration activates the vertical catching function. After relieving the guided type fall arrester all safety devices tighten again and are immediately again available without limitation.

In this moment the guided type fall arrester is again ready for use with all protective systems without any delay.



HACA MultiSafe

Further features

Guided type fall arrester:

The friction wheel of the speed-dependent catching function has two redundant contact surfaces (see detail a). Furthermore there is an integrated marking for wear and tear becoming visible due to a second surface colour (see detail b). This makes the degree of wear and tear and hence the moment for exchange clearly visible.

The strain on arms and legs is relieved when climbing with this guided type fall arrester. The user leans into the harness and creates like this the necessary horizontal tensile force for a free run of the guided type fall arrester.

The guided type fall arrester even can run in bends (rad. min. 750 mm). Backwards movements must be activated manually.

HACA snap-hook with TRI SAFElock:

The snap-hook of the guided type fall arrester is secured with a HACA TRI SAFElock (see detail c). This opening mechanism closes independently and has to be opened for reasons of the user's safety by three intended axial rotary and pushing motions.

The polyamide shock absorbing element (see detail d) forms back into its original shape after having been exposed to the shock load. It does not tear apart for absorbing the load impact as a textile shock absorber or a deforming element would. The advantage of this fact is that the connection from the user to the guided type fall arrester does not extend inappropriately.

In this moment the guided type fall arrester is again ready for use with all protective systems without any delay.

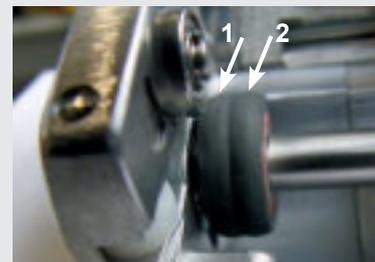
The swivel (see detail e) makes it easier to change direction from vertical to horizontal and makes it possible to use harnesses with horizontal and vertical attachment points.

Accessories:

A protection case for the guided type fall arrester can be found on page E.11, tool bag E.14.

Material	Order No.
Aluminium, stainless steel	0529 7400 00

Details



a Redundant friction wheel



b V-Marking for wear and tear on the friction wheel
red = exchange necessary



c TRI SAFE-lock



d Shock absorber device



e Swivel



According to DIN 18799:2019 there must be at least two guided type fall arresters at site. Before opening the guided type fall arrester the user must protect himself against falling with the help of a rope.

HACA MultiSafe Fall arrester

Model 0529.74.50 with opening mechanism

Benefits

- »»Excellent running properties
- »»Can be removed from any position on the fall arrest rail
- »»One-hand operation
- »»It is possible to save removal flap and notches
- »»Has 3 catching functions:
 1. Catching function: In case of vertical fall the 1. catching function responds
 2. Catching function: In case of falling backwards (fall-back and sit-back) the device catches due to an automatic draught limiter
 3. Catching function: A centrifugal brake releases a braking impulse at high speed and brings catching function 1 into action.
- »»Approved for persons from 40 kg to 150 kg
- »»The value of 5 kN is 17 % below the maximum impact force with a 100 kg steel dummy, claimed in EN353-1
- »»Extreme safety is provided as the guided type fall arrester can be used right after a fall. Consequently a second fall is also safe
- »»The snap-hook has a swivel
- »»The new karabiner installed since the end of 2016 has a weight saving of ~ 10 % and has a larger intake, Details see E.06
- »»Very smooth-running, hence no exhaustion and only low level of strain when climbing
- »»Very good running properties due to roll guides at each side and long axis distance
- »»Contact to the guiding rail via ball-bearing rolls
- »»Correct insertion into the fall arrest rail is compulsory and therefore guaranteed
- »»Arms and legs are relieved when climbing
- »»Can be used up to 15° layback and 20° lateral position
- »»Can additionally be used for horizontal fall arrest rails

Application

- »»Can be used on all HACA fall arrest rails
- »»For minimum radius of 750 mm
- »»CE certified as climbing protection according to DIN EN353-1: 2018, also tested according to ANSI/ASSE2359.1-2007 and CSAZ259.2.4-15.

Handling and function

The fall arrester may be removed from any position of the ladder section. The arrester is designed in a way that a logical sequence must be run through for one-handed opening of the arrester. An internal safety system ensures that the arrester can only be attached in the running direction. In the event of a fall the fall arrester jams on the rail after just a few centimetres. There is a delay when the arrester is engaged and stopped so this does not occur abruptly as, for example, is the case with fall arrest systems whose guide rails have safety crimping or safety rungs at certain intervals. This reduces the impact load on the person falling. Ascending and descending using this arrester relieves the load on arms and legs. The user leans into the belt, thereby achieving the horizontal tensile force necessary for the arrester to run freely.

Material	Order No.
Aluminium, stainless steel	0529 7450 00



Frontal view



Lateral view



1 - Pull



2 - Remove

Fall arrester Model 0529.60.01

Benefits

- »» Excellent running properties
- »» For use where space is very restricted (e.g. in shafts)
- »» Can be used up to 5° layback and 3° lateral position
- »» No horizontal release force necessary Therefore for the retrofitting of step irons and step ladders according to DGUV201-014
- »» Correct insertion in the fall arrest rail is compulsory and therefore guaranteed
- »» Contact to the guide rail via ball bearings
- »» Approved for persons up to 150 kg
- »» With integrated shock absorber, meets the current requirements of DIN EN353-1:2018.

Application

- »» For fall arrest rails made of L-profile
- »» For single rail fall arrest ladders made of L-profile and special equipment from this programme
- »» For minimum radius of 700 mm
- »» CE certified as climbing protection according to DIN EN353-1: 2018

Design

Made of steel. One-hand karabiner hook EN363 made of electrogalvanised steel. Plastic rollers.

Approx. weight 1.65 kg.

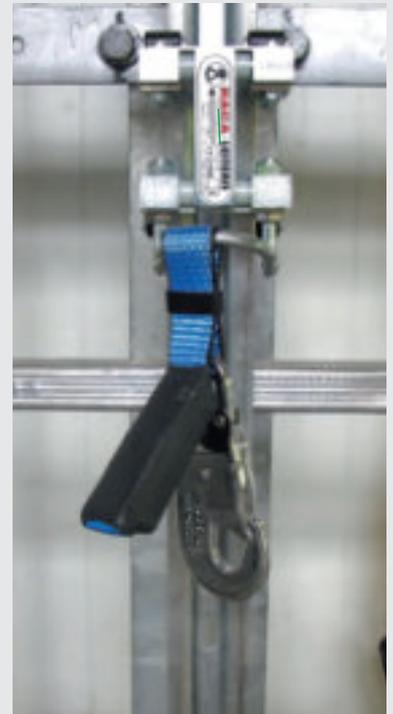
Outer dimensions (H x B x D) approx. 150 x 85 x 90 mm.

Handling and function

The fall arrester is connected to the applied safety belt using the one-hand karabiner hook and simply carried with it when ascending. In the event of a fall the fall arrester jams on the rail after just a few centimetres. There is a delay when the arrester is engaged and stopped so this does not occur abruptly as, for example, is the case with fall arrest systems whose guide rails have safety crimping or safety rungs at certain intervals. This reduces the high impact load on the person falling. There is no need for special behaviour on the part of the user to ensure that the arrester can run freely, e.g. by leaning back with the upper body to maintain tensile force and thus the free running of the arrester. This is a great advantage where space is restricted. It is also possible to move round bends with the fall arrester. Backward movements must be actuated manually.

Protective case for fall arrester Page E.11, tool bag E.14.

No horizontal release force necessary!



Material	Order No.
Steel, electrogalvanised	0529 6001 00

 According to DIN 18799:2019 at least two fall arresters must be provided on site. Before opening the fall arrester the user must secure himself against falling using a safety rope.

DIN EN 353-1: 2018 · CE 0158



Fall arrester Model 0529.80

Expected to be available from the middle of 2019 on

Benefits

- »»» Excellent running properties
- »»» Can be removed from any position on the fall arrest rail
- »»» For use where space is very restricted
- »»» Can be used up to 5° layback and 3° lateral position
- »»» No horizontal release force necessary
- »»» Correct insertion in the fall arrest rail is compulsory and therefore guaranteed
- »»» Contact to the guide rail via ball bearings
- »»» Lateral contact to the guide rail via plastic rollers
- »»» Approved for persons from 40kg up to 150 kg
- »»» With integrated shock absorber, meets the current requirements of DIN EN 353-1:2018.

Application

- »»» Can be used on all HACA fall arrest rails
- »»» For radius min. 750 mm
- »»» CE certified as climbing protection according to DIN EN 353-1: 2018.

Design

Steel snap hook according to EN 362 made of galvanised steel.
 Weight approx. 1.2 kg.
 Outer dimensions (H x W x D) approx. 102 x 90 x 65 mm

Handling and function

The karabiner hook is used to connect the type fall arrester to the safety belt and simply drag it along when climbing up. In the event of a fall, the type fall arresters jams on the rail within a few centimetres. Intervention and stopping of the arrester are not abrupt, as it is the case, for example, with fall arrest systems whose running rails are equipped with safety beads or safety bars at certain intervals, but are delayed. This reduces the high loads acting on the falling person. A special behavior of the user to ensure that the fall arrester runs freely, e.g. the upper part of the body is reclined, is not necessary to maintain the tractive force and thus the free movement of the fall arrester.

This is a great advantage in confined spaces. With the fall arrester you can also drive around curves. In reverse direction a manual release is required.

Protective case for type fall arresters page E.11, tool bag E.14

No horizontal release force necessary!



1 Unlock



2 Pull



3 Remove

Material	Order No.
Aluminium, stainless steel	0529 8000 00

According to DIN 18799:2019 at least two fall arresters must be provided on site. Before opening the fall arrester the user must secure himself against falling using a safety rope.

Fall arrester Model 0529.74.30

HACA MultiSafe



Fall arrester Model 0529 7430 00 Especially for use in mobile communications

From now on you can get the new HACA fall arrester type 0529.74.30 from the HACA MultiSafe series with three catching functions, Rotary swivel and damping element, which was specially designed for the use in mobile communications.

The basic characteristics correspond to our fall arrester type 0529.74, but the running behaviour has been specially designed for the use on the aluminium single stile ladder with  profile type 643x with rail thickness of 6mm optimized.

The optimization of the fall arrester only refers to the Climbing behaviour, the safety aspects are not affected.

Therefore the use itself is not limited. A fall arrester type 0529.74 can also be used on an aluminium single stile ladder with  profile and a fall arrester type 0529.74.30 can be used on a rail with top hat profile.

Our fall arrester are designed in such a way that their use on our fall protection rails never interferes with safe use.



Benefits

- »» Excellent running properties
- »» Has 3 catching functions:
 - »» 1. Catching function: In case of vertical fall the 1. catching function responds
 - »» 2. Catching function: In case of falling backwards (fall-back and sit-back) the device catches due to an automatic draught limiter
 - »» 3. Catching function: A centrifugal brake releases a braking impulse at high speed and brings catching function 1 into action
- »» Approved for persons from 40 kg to 150 kg
- »» The value of 5 kN is 17 % below the maximum impact force with a 100 kg steel dummy, claimed in EN 353-1
- »» Extreme safety is provided as the guided type fall arrester can be used right after a fall. Consequently a second fall is also safe
- »» The snap-hook has a swivel
- »» The new karabiner installed since the end of 2016 has a weight saving of ~ 10 % and has a larger opening
Details see E.06
- »» Very smooth-running, hence no exhaustion and only low level of strain when climbing
- »» Very good running properties due to roll guides at each side and long axis distance
- »» Contact to the guiding rail via ball-bearing rolls
- »» Correct insertion into the fall arrest rail is compulsory and therefore guaranteed
- »» Arms and legs are relieved when climbing
- »» Can be used up to 15° layback and 20° lateral position
- »» Can additionally be used for horizontal fall arrest rails



3-fache Sicherheit durch
3 unterschiedliche Fangfunktionen.

Material	Order No.
Aluminium, Edelstahl	0529 7430 00



Fall arrester Annual inspection

Guided type fall arresters as PPE must be inspected by a qualified person.

We recommend that these are checked at the HACA factory as trained personnel and the requisite test facilities are available there. Furthermore necessary repair can be done directly.

Inspection for fall arrester model	Order No.
0529.60 ¹⁾	siehe Umbau
0529.60.01	0529 6001 10
0529.74	0529 7410 00
0529.74.30	0529 7430 10
0529.74.50	0529 7450 10
0529.74.80	0529 8000 10

* The inspection costs are net. Necessary spare parts will be charged separately. You will receive a separate cost estimate for additional costs with more than 25.00 € in advance for approval.

¹⁾ This type of arrester is not checked/repared anymore. It will be converted to the successor model 0529.60.01

Replacement log book	Order No.
0529.60	0529 6011 00
0529.60.01	0529 6012 00
0529.74 / 74.30	0529 7411 00
0529.74.50	0529 7450 11
0529.74.80	0529 8000 11

Inspection using the example of 0529 7115 00:

- visual control after receipt at our site
- control of completeness (log book and check list)
- removal of the safety sealing for the screws and disassembly of the adjusting screw
- cleaning of the guided type fall arrester
- assembly of new adjusting screws and setting of the guided type fall arrester with the help of the test gauge
- running test on the fall arrest rail
- sealing the adjustment screw
- new inspection plate, update log book

Conversion Of Fall arrester Type 0529.60 to Type 0529.60.01

By converting fall arrester type 0529.60 to type 0529.60.01 the device complies with the current standards again and may continue to be used.

Conversion	Order No.
0529.60 und 0529.60.01 in Verbindung mit Überprüfung	0529 6040 00
0529.60.01	0529 6001 10



Informationen concerning instructions for experts for Qualified persons according to TRBS1203 for the inspection of HACA fall arresters see page S.01 and on www.haca.com.

Safety harness

Annual inspection

The safety harnesses, ropes and fasteners we sell have to be checked once a year by a qualified person as they are PPE.

Inspection of safety harness, ropes and fasteners:

Inspection of harness	Order No.
First article for inspection	0529 3500 01
any following article	0529 3500 02

Accessories for users

New aluminium substitute carabiner

Since the middle of 2016, the guided type fall arresters of series MultiSafe (0529.74 and 0529.74.50) have been standardly equipped with the new aluminium carabiner

Innovations

- »» weight reduction of up to 10% of the total weight
- »» larger opening of the carabiner makes it easier to use harnesses with loops.

It is possible to exchange the connector on guided type fall arresters which were bought before the change.



Previous carabiner made of steel.

Exchange **only possible in combination** with the annual inspection.

Exchange of carabiner incl. absorber element on guided type fall arrester type	Order No.
0529.74 and 0529.74.50 in combination with inspection	0529 7425 00
0529.74	0529 7410 00
0529.74.50	0529 7450 10



New carabiner made of aluminium.

Exchange of the absorber element for guided type fall arresters of the MultiSafe series

The absorber element has a maturity (max. permissible age) of 6 years. At the end of this period, the absorber must be exchanged before the fall arrester is allowed to be used again.

Exchange **only possible in combination** with the annual inspection.

Exchange of absorber element	Order No.
0529.74 and 0529.74.50 in combination with inspection	0529 7426 00
0529.74	0529 7410 00
0529.74.50	0529 7450 10



Accessories for controller

Test gauge for fall arrester

For fall arrester model series **0529.72**

The test gauge is used to check the catch properties according to the label.

Use of the test gauge by the user does not obviate the need to have an annual inspection carried out by a qualified person.



Material	Order No.
Stainless steel	0529 7102 18

Inspection equipment for fall arresters of model series **Model Safe Model 0529.74, 0529.74.30 und 0529.74.50**

The annual inspection of fall arrester type 0529.74 and 0529.74.50 requires a functional test of the speed-dependent catching function.

It is necessary to apply the fall arrester to a fall arrest station.

We recommend using the inspection equipment which has been designed especially for this purpose.

Material	Order No.
Steel, hot-dip galv.	0529 7420 00



for users Protective case for PPE

Aluminium box for weather proof storage of fall arresters, harnesses, helmets, etc.



outer dimensions (mm)	inner dimensions (mm)	weight (kg)	volume (l)	Order No.
432 x 335 x 277	400 x 300 x 245	3,2	29	0529 4210 01
592 x 388 x 409	560 x 353 x 380	5,3	76	0529 4210 03

Spare part box for small replacement parts

For the HACA guided type fall arresters **model 0529.71.03, 0529.72.01, 0529.73, 0529.74 and 0529.74.50**. Contains ball bearings, roll axis, guide rolls, etc.

Order No.
0529 7400 65





Safety harness Full body harness



Belt selection

A risk assessment must be carried out according to the respective applicable national provisions and laws in the country of use. The selection of belt depends on the requirements of the assignment. HACA fall arrest systems are intended for climbing purposes or use as a horizontal attachment point.



The belt to be used must be designed so that the maximum stretch occurring when the user exercises the maximum horizontal force precludes the risk of accident for the intended assignment. The belt must have suitable attachment points for the intended assignment.

Model 0529.37.04

made from polyamide/polyester fabric with quick fasteners (slot buckle)

Weight 1.7 kg

with back support, dorsal eyelet, with thoral eyelet, with ventral eyelet (arrester loop), with 2 lateral attachment points (to hook onto the device bag or safety rope)

Costum
made



Benefits

- »» For greatest safety requirements
- »» Girth 80 – 110, leg circumference 55 – 70, body height 165 – 190
- »» For fall arresters with and without horizontal release force

Order No.

0529 3704 00

Accident prevention regulations (UVV) · DIN EN 361 · DIN EN 358 · CE 0158



Safety harness Full body harness

Model 0529.37.02

With dorsal eyelet,
with ventral eyelet (arrester loop),
with thoral eyelet,
with 2 lateral attachment points and backsupport
attachment point in the shoulderarea

Custom
made



Benefits

- » Very comfortable to wear
- » Adjustable shoulder and leg belts (width 100 mm)
- » Can be adjusted to sizes 38 to 56
- » For fall arrester with and without horizontal release force

Order No.
0529 3702 00

Accident prevention regulations (UVV)
DIN EN 361 · DIN EN 358 · CE 0158



Model 0529.37.07

With dorsal eyelet,
with thoral eyelet,
with ventral eyelet (arrester loop)

Custom
made



Benefits

- » Ergonomic safety harness with innovative shock absorption
- » according to DIN EN361, 358 and 813
- » weight capacity max. 140 kg
- » Adjustable vertical leg straps for adjustment to different operational situations (Climbing/stocking, walking/standing)
- » Tool eyelet on the belly strap
- » Comfort cushion to reduce heat build-up

Order No.	size	weight (kg)
0529 3707 00	XS– M	2,0
0529 3707 01	M– XL	2,5

Ropes and Accessories

Safety rope



DIN EN 358

Connecting element in accordance with EN354, Polyamide rope Ø 12 mm, single strand, lengths infinitely adjustable through clasp (EN358). Length 0.75 – 1.50 m. With 2 M 10 karabiner hooks.

Order No.
0644 0201 01

Safety rope



DIN EN 358

Ropediameter 4 mm, with 2 aluminium karabiner hooks and with 2 lock nuts. Ropeshortener with mountain climbing karabiner hooks. Hook opening 20 mm. Ropeshortener with one-handed operation permits adjustment to 1.50 m.

Order No.
0529 3501 00

Connecting elements



DIN EN 354

Connectingelement with integrated shock absorber. Length 2 m. With M 51 karabiner hook..

Order No.
0529 3503 00

Safety rope with pipe hook



DIN EN 353-2

Horizontal and vertical approval. With rope shortener and shock absorber

Ropelength approx. m	Order No.
5	0644 0301 01
10	0644 0401 01
15	0644 0501 01
20	0644 0701 01

Loop sling

Costum made



DIN EN 795 B

Loop sling to create an attachment point to pipes, beams etc. for 1 person. 19 mm strong belt strap with reinforced attachment grommet. Length 1 m.

Order No.
0644 3000 00

Y-rope



Shockabsorber incl. Y-fastener. Complete length 2 m. Kernmantle rope 12 mm converted as Y-fastener.

Order No.
0529 3504 00



Tool bag

Designed for the needs of the wind industry. With Velcro and Clip closure. Flexible loops for practical arrangement of tools. Three loops for variable bag fit.

Order No.
0529 4100 01



Pursuant to Section 1.3 of the German Workplaces Ordinance (Arbeitsstättenverordnung) the operator of a fall arrest system must take the results of the risk assessment into consideration. It is mandatory that this clarifies the question of rescuing casualties. Rescue equipment must be kept ready to use and within direct reach when climbing ladders so that the injured person can be rescued within an appropriate period of time.

Training programme



According to TRBS1203 the employer has to assign a qualified person for controlling the work equipment. According to 2.3 an adequate training is indispensable.

HACA ladders offer the possibility of gaining the necessary theoretical and practical qualification by attending specialised training at our head office in Bad Camberg.

Specialised Training

- »»Specialised training in ladders and steps
- »»Portable fire ladders
- »»Fixed ladders and fall protection
- »»Mobile scaffolds
- »»Inspection and control of climbing installations with rigid anchor line in wind energy plants
- »»Further instructions on enquiry

Central topics

- »»To become acquainted with rules, standards and data sheets
- »»Assessment of the ladder's condition
- »»Control of ladders
- »»Repair of ladders
- »»Hints for assembly
- »»Product choice



Participation fee: € 240,00 plus VAT per training day and participant. The participation fee includes: detailed seminar documents, non-alcoholic beverages, lunch and a certificate.

In-house training courses on enquiry.

INFO-LINE (0 64 34) 25-621



Training programme

Training for competence in ladders and steps Duration: 1 day

Central topics:

- »» Mobile ladders: step ladders, rung ladders, platform ladders and stairs, steps, shelf ladders
- »» Corresponding standards
- »» Legal background
- »» Theoretical and practical ladder inspection

Training goal:

After attending this course you will be a qualified person for ladders and steps according to the technical operating regulation TRBS1203. By teaching you the safe handling of ladders and steps you will be able to judge the safety of the ladder by visual and functional inspections. This knowledge does not only apply for HACA products but for any type of mobile ladder and steps. In order to back up your procedure when inspecting the ladder as well as the corresponding result we familiarize you with laws, regulations, rules and standards in this field. As further support for inspections to do we discuss our instructions for assembly and use. After this instruction you will be able to decide which repair on your ladders and steps can be done by yourself.



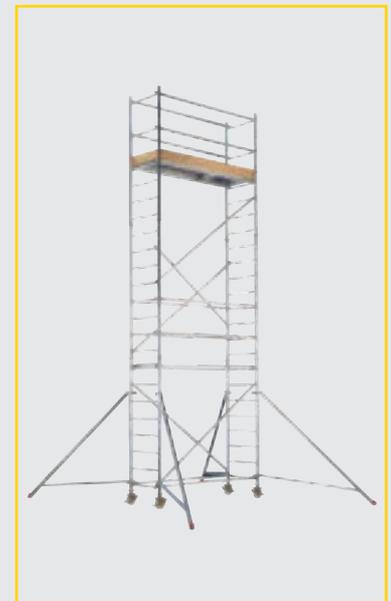
Mobile scaffolds Duration: 1 day

Central topics:

- »» Mobile scaffolds: mobile scaffolds with stabilizers, mobile scaffolds with stabilisers, mini scaffolds
- »» Corresponding standards
- »» Legal background
- »» Theoretical and practical inspection of mobile scaffolds

Training goal:

After attending this course you will be a qualified person for mobile scaffolds according to the technical operating regulation TRBS1203. By teaching you the safe handling of mobile scaffolds you will be able to judge the safety of the scaffold by visual and functional inspections. In order to back up your procedure when inspecting as well as the corresponding result we familiarize you with laws, regulations, rules and standards in this field. As further support for further inspections we discuss our instructions for assembly and use. After this training you will be able to decide which repair on mobile scaffolds can be done by yourself.



Portable fire ladders Duration: 1 day

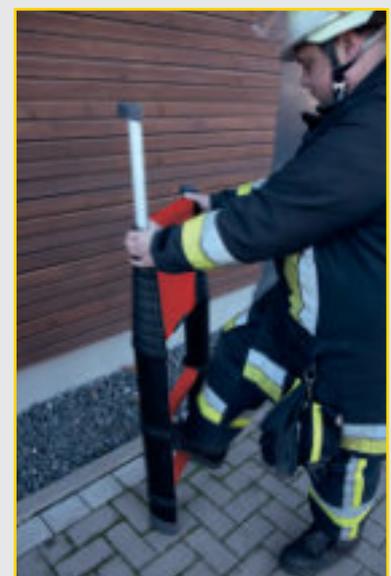
Central topics:

- »» Portable fire ladders: sectional ladders, hook ladders, double-runged connections, 3 section extending ladder, rescue platform, telescopic ladder "Telesteiger"
- »» Corresponding standards
- »» Legal background
- »» Theoretical and practical ladder inspection

Training goal:

After attending this course you will be a qualified person for portable fire ladders according to the technical operating regulation TRBS1203. By teaching you the safe handling of portable fire ladders you will be able to judge the safety of the portable fire ladder by visual and functional inspections as specified by the manufacturer. In order to back up your procedure when inspecting as well as the corresponding result we familiarize you with laws, regulations, rules and standards in this field.

We will give special theoretical and practical attention to the inspection policy of fire departments for practice and devices in the area of ladders BGG/GUV-G 9102. After this instruction you will be able to decide which repair and maintenance on portable fire ladders can be done by yourself.



Training programme

Fixed ladders Duration: 2 days

Central topics:

- »» Fixed ladders and PPE: vertical ladders on buildings, emergency ladders, machine accesses, shaft ladders, arrester systems (fall protection), personal protective equipment (HACA guided type fall arrester)
- »» Corresponding standards
- »» Legal background
- »» Theoretical and practical inspection of ladders and PPE (only HACA rail and HACA fall arrester)

Training goal:

After attending this course you will be a qualified person for fixed ladders, according to the technical operating regulation TRBS1203. By teaching you the installation and safe handling of fixed ladders you will be able to judge the safety by visual and functional inspections. We will give special attention to the safe handling and use of arrester systems. In order to back up your procedure when inspecting as well as the corresponding result we familiarize you with EU guidelines, laws, regulations, rules and standards in this field. As further support for further inspections we discuss our instructions for assembly and use. After this training you will be able to decide if a ladder installation is safe and which repair on fixed ladders can be done by yourself.



Training for wind energy plants Duration: 1 day

Central topics:

- »» Ladders in wind energy plants and PPE: machine accesses, arrester systems (fall arrest), personal protective equipment (HACA guided type fall arrester and harnesses), climbing device HACA Clifter on request
- »» Other fixed ladder systems are not part of this training
- »» Corresponding standards
- »» Legal background
- »» Theoretical and practical inspection of ladders and PPE (only HACA rail and HACA fall arrester)

Training goal:

After attending this course you will be a qualified person for wind energy plants, according to the technical operating regulation TRBS1203. By teaching you the installation and safe handling of vertical ladders with fall arrest rail you will be able to judge the safety by visual and functional inspections. We will give special attention to the safe handling and use of arrester systems.

In order to back up your procedure when inspecting as well as the corresponding result we familiarize you with EU guidelines, laws, regulations, rules and standards for this area. As further support for future inspections we discuss our instructions for assembly and use.

After this training you will be able to decide if a ladder installation is safe and which repair and maintenance on fixed ladders with fall arrest rail and guided type fall arresters can be done by yourself.



Combined training for ladders, steps and mobile scaffolds

Duration: 1 day

This training will make you familiar in one day with the knowledge of an expert concerning ladders, steps and mobile scaffolds. Focus is on the field of ladders and steps. Here you will gain the entire knowledge of an expert, for mobile scaffolds we will teach the basic information.

Registration form for technical training courses



Lorenz Hasenbach GmbH u. Co. KG
 – Schulung –
 Dieselstraße 12
 D-65520 Bad Camberg

Tel.: (0 64 34) 25-0
Fax: (0 64 34) 25-500
hallo@haca.com

Date: _____ Pages (incl. cover sheet): _____

Name: _____

Street: _____

Town/Postcode: _____

Tel./Fax: _____

E-mail: _____

Registration

We register the following employees for a training course

Expert knowledge of ladders and steps

Portable fire ladders

Fixed ladders

Please tick box for relevant training course!

Mobile scaffolds

Climbing installations in wind energy plants

on in Bad Camberg:

Surname	Christian name	Department

Fees: € 240,00 plus VAT per participant and day of the training course.

We will enclose overnight accommodation options in Bad Camberg with our registration confirmation!

Company stamp

Date/signature

You can find this form on www.haca.com

Head office



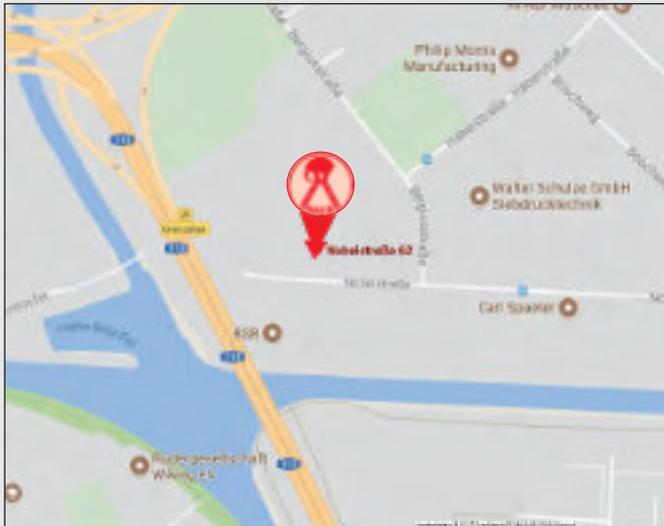
Company premises in Bad Camberg and factory with integrated training centre

We are a traditional ladder manufacturer and can look back on more than 130 years' experience in building ladders. Our unique diverse range in Europe encompasses over 1000 variations of ladders, steps and mobile scaffolds

for industry, retail and trade. 12 factory depots and decades of involvement in domestic and international standards committees verify our competence and expertise in ladder construction.

Lorenz Hasenbach GmbH u. Co. KG
 D-65517 Bad Camberg
 POB 1280
 Address:
 Dieselstraße 12
 D-65520 Bad Camberg
 Tel. +49 (0) 64 34-25-0
 Fax +49 (0) 64 34-25-500
www.haca.com
 e-mail: hallo@haca.com

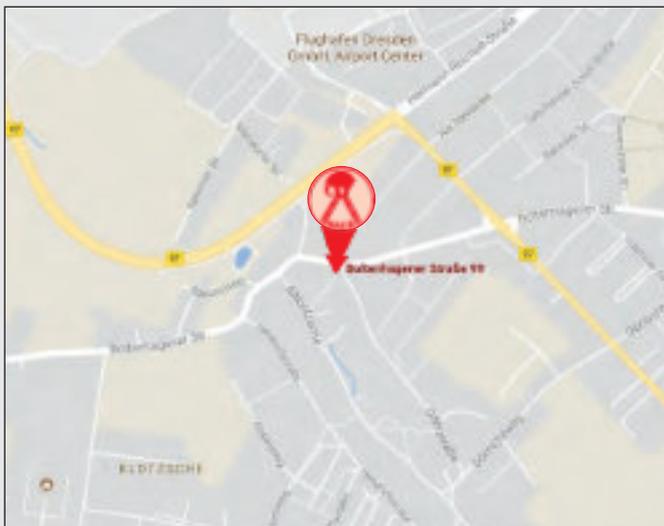
Factory depots



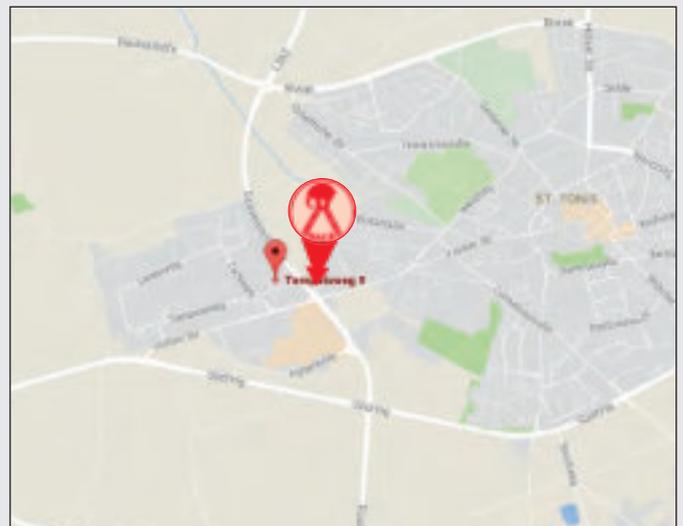
BERLIN:12057 Berlin-Neukölln · Nobelstraße 62



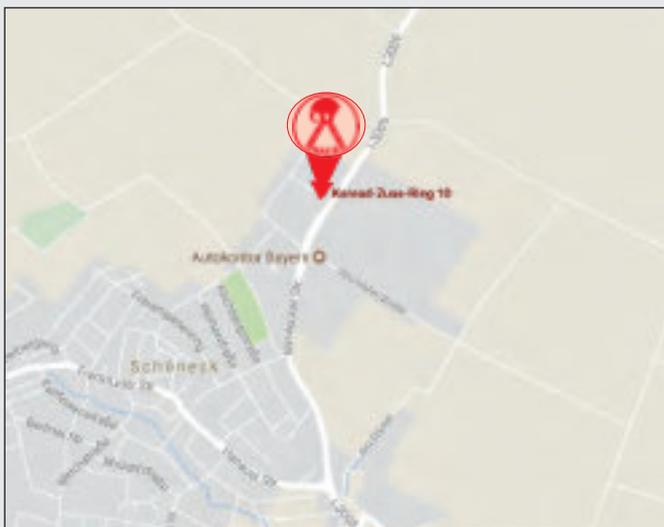
BREMEN:28844 Weyhe-Leeste · Im Mühlenfeld 1



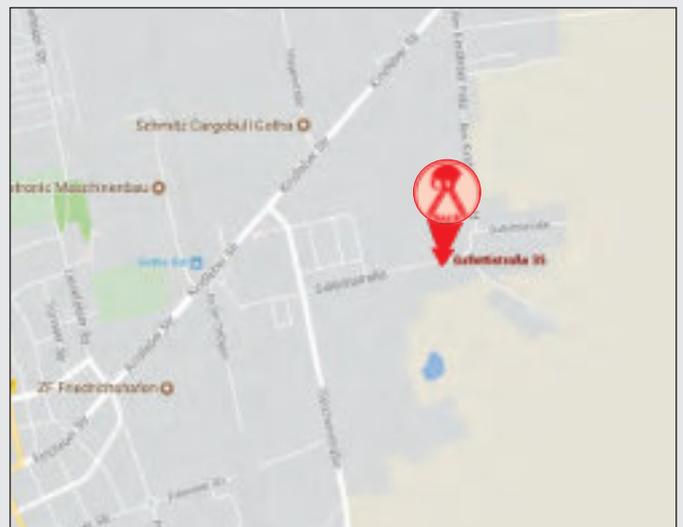
DRESDEN:01109 Dresden-Klotzsche · Boltenhagener Str. 99



DÜSSELDORF/TÖNISVORST:
47918 Tönisvorst · Tempelsweg 9

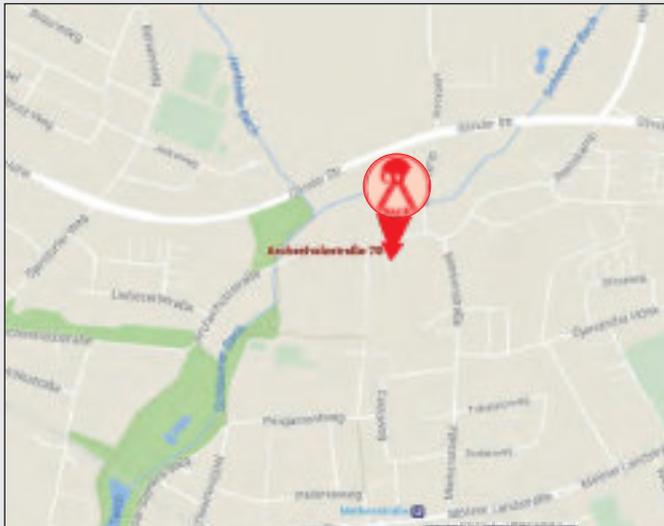


FRANKFURT/MANNHEIM:
61137 Schöneck · Konrad-Zuse-Ring 10

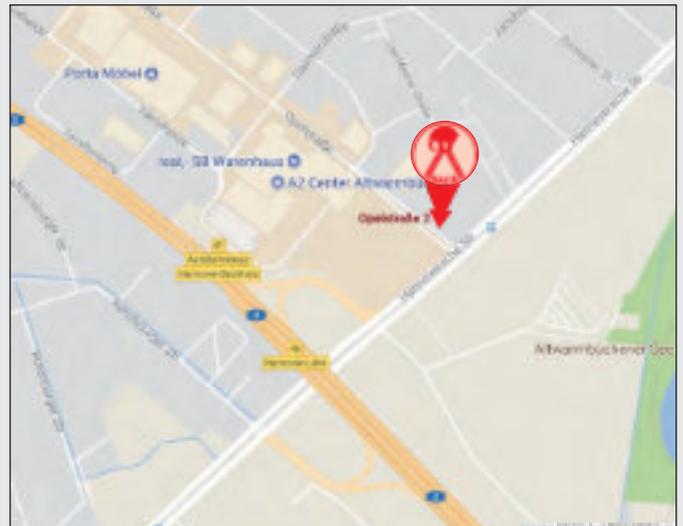


GOHA: 99867 Gotha · Gallettstraße 35

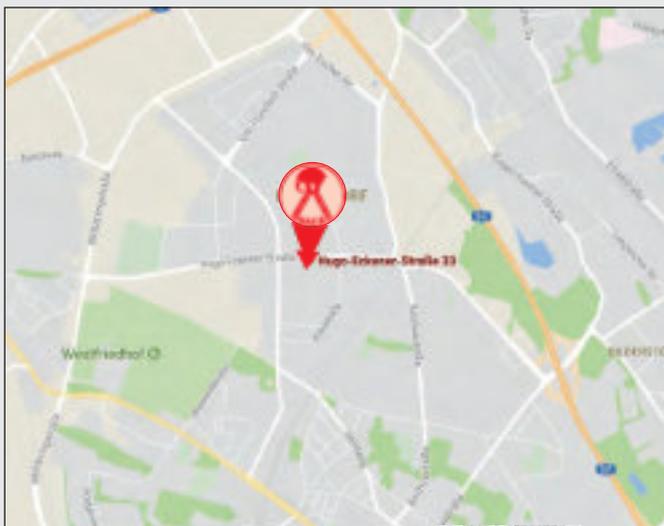
Factory depots



HAMBURG: 22117 Hamburg-Billstedt · Archenholzstr. 78



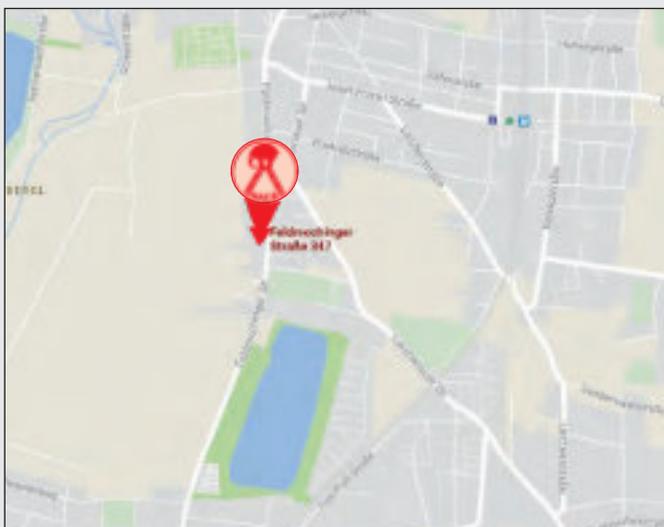
HANNOVER:
30916 Isernhagen-Altwarmbüchen · Opelstraße 2



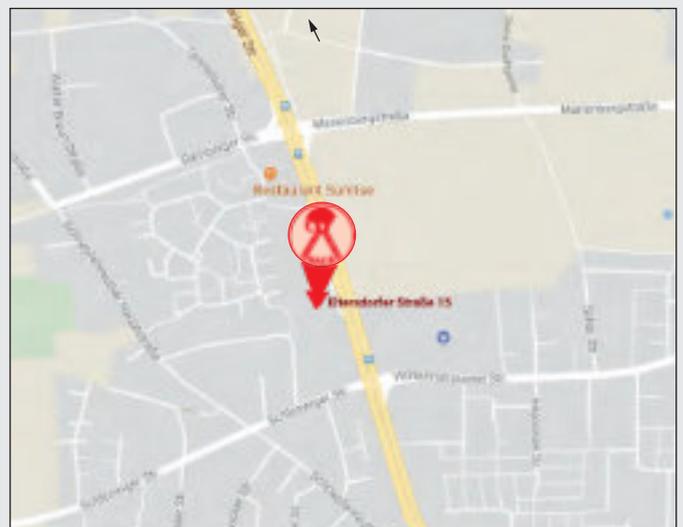
KÖLN: 50829 Köln-Ossendorf · Hugo-Eckener-Str. 33



LEIPZIG/HALLE: 04509 Wiedemar · Hauptstraße 3



MÜNCHEN: 80995 München · Feldmochinger Straße 347



NÜRNBERG: 90425 Nürnberg-Thon · Eltersdorfer Str. 15

General Terms and Conditions of Sale LA 19

1. The following Terms and Conditions of Sale in conjunction with our order confirmations apply exclusively to all and all future contracts and deliveries. We are not bound by any contradictory conditions of purchase of the customer, even if we do not explicitly object to these. When accepting the delivered goods at the latest the customer declares his agreement to these Conditions of Supply. Verbal supplementary agreements, assurances, changes to the contract and these conditions shall require our written confirmation to be valid. Data will be stored on an IT system for the purpose of order processing.
2. All prices are ex works Bad Camberg, plus the statutory rate of Value Added Tax. Any extra packaging required will be charged at the cheapest possible rate. Tolls will be charged to the customer. Our packaging complies with the requirements of the new Packaging Ordinance. If packaging is not charged separately we reject packaging refund or return.
3. Delivery takes place for the account and risk of the recipient. The goods must be unpacked in the presence of the carrier and examined for damage and completeness. No subsequent repair shall otherwise be possible in the case of film packaging. The regulations of the carrier must be observed. Inspection duties within the framework of Section 377 German Commercial Code (HGB) shall explicitly continue to apply. Prerequisite for compliance with delivery deadlines is the correct and punctual delivery by suppliers. If our delivery is delayed and a period of grace set by the customer passes without being used, the purchaser shall be entitled to withdraw from the contract. The withdrawal should be declared without delay in writing following the expiry of the statutory period of grace. If the delivery is delayed by circumstances for which we are not responsible, such as force majeure, labour disputes, unrest, official measures, failure to receive supplies from our suppliers and other unforeseeable, unavoidable serious events, the delivery deadline will be extended by the duration of this delay and an appropriate period of grace..
4. We are liable for the perfect execution and workmanship of our products. The warranty provisions of the manufacture shall apply to all parts not manufactured by us. The warranty period is 12 months insofar as statutory provisions do not stipulate a mandatory longer warranty period. Within the warranty period we undertake to carry out remedial work within an appropriate period for both parties. If the remedial work is unreasonable for us or the purchaser, there shall be a right to replacement delivery. If remedial work or replacement delivery fails the purchaser shall be entitled to a reduction in the purchase price or to withdraw from the agreement. Other claims shall be ruled out. Therefore we shall only be liable for damage to the actual goods themselves. In particular we shall not be liable for lost profit or other financial losses of the purchaser. This liability limitation shall not apply in the case of wilful intent or gross negligence on the part of our legal representatives or executive employees or in the event of culpable infringement of substantial contractual duties. In such cases we shall only be liable for damage that is foreseeable and typical of this type of agreement. Where our liability is excluded or limited this shall also apply to the personal liability on the part of our employees, legal representatives and vicarious agents. Place of performance for subsequent performance is the original delivery location. There shall be no liability for damage arising through wear. Claims for any defects arising during the warranty period should be asserted immediately on discovery. If warranty work is performed by third parties or by the purchaser without our explicit prior agreement, the entitlement arising from our warranty shall no longer apply. Similarly there shall be no liability for defects that arise through defective storage, incorrect operation or use..
5. The specified delivery period is not binding. We pass on the arrival times specified by the carrier without any obligation and we shall also not be liable for consequential damage..
6. The valid price on the day of delivery shall be charged.
7. Cash payment within 8 days of the invoice date is with 2% discount, otherwise payment is net within 30 days. Invoice amounts below € 50.00 must be paid without deducting discount. It is not possible to pay by cheque. Interest of 8 % above the respective base rate shall be calculated from the due date in the case of default. Discounts and other benefits shall be granted on the condition that all of our demands are satisfied as agreed. In the case of default on the part of the purchaser we shall be entitled to revoke any agreed discounts and other benefits. Following written notification to the purchaser we shall be entitled to discontinue our obligations until payments have been received.
8. The supplied goods shall remain our property until the accounts receivable have been paid in full (reservation of title on the balance). If the value of the securities we have exceeded the total accounts receivable by more than 10% then we shall be obliged to release securities of our choice if the purchaser demands this. Resale is only permitted for commercial distributors within the framework of a proper business transaction. If the customer has unpaid goods then he shall assign his rights to the purchase price arising from resale to us up to the amount of our accounts receivable and shall be obliged if asked to name the purchaser to us and to maintain our reservation of title by extending it to him. If unpaid goods have been installed or inserted into a building so that they become a substantial part of it, then the customer must inform us of this giving appropriate advance notice and assign his claims arising from it to us now. Disposals of goods that have not been paid for and that do not lead to a transfer of accounts receivable (e.g. because assignment is prohibited) shall only be permitted with our written agreement. In the case of insolvency, our reservation of title shall extend to all goods we have supplied that form part of the assets or are in them, also those already paid for by the purchaser, until all of our outstanding accounts have been paid. If the purchaser stops payment before paying for the goods we have delivered, pursuant to Sections 47, 48 German Insolvency Act (InsO) we have the right to segregate the goods or demand substitute segregation.
9. Place of performance for both parties is the registered office of the supplier. If the customer is a registered merchant or has no general place of jurisdiction in Germany, Limburg shall be the agreed venue.
10. Drawings are not binding. We reserve the right to make design changes.
11. Information that ladders correspond to accident prevention regulations, standards and similar is provided to the best of our knowledge and belief but is not binding. Where designs deviate additional terms should be concluded.
12. Weights specified are approximate values to compare weights of wood, plastic, lightweight steel and aluminium ladders and to determine freight costs. However, the information is not binding and not decisive for delivery.
13. Some of the dimensions in brochures are compiled for different models of ladder and rounded up or down. Please let us know if you require accurate dimensions.
14. If we agreed to a customer request to exchange or take back the product then he must bear all costs arising from this (the goods must still be in a perfect, new state). The exchange or taking back of goods is excluded in the case of special equipment (non-standard items) and Vario-Step. Intermediate sizes result in additional charges..
15. For transport-related reasons bulky equipment (e.g. platform ladders) and accessories (e.g. hooks) are delivered dismantled or unassembled.
16. Our liability shall only apply to the above mentioned conditions. All claims that have not been explicitly agreed therein, also damage claims, irrespective of legal reason, shall be excluded. In particular this applies to damage claims arising from an infringement of duties when commencing contractual negotiations and initiating contractual obligations and from tort. This liability limitation shall not apply in the case of wilful intent, in the case of gross negligence on the part of our statutory representatives or executive employees or in the case of culpable infringement of substantial contractual duties. The liability limitation shall furthermore not apply in cases where there is liability for personal injury and damage to property for privately used objects pursuant to product liability law if the products delivered are faulty. It shall also not apply if there is injury to life and limb or damage to health or in the case of faults in agreed properties if, and to the extent that, the very purpose of the agreement is to protect the purchaser against damage not sustained on the delivered goods themselves. Where our liability has been excluded or limited, this shall also apply to the personal liability of our employees, legal representatives and vicarious agents.
17. Deliveries to the USA/Canada are precluded.
18. Our General Terms and Conditions of Sale apply exclusively, in particular also to regulate any corresponding conditions of the purchaser.

Test symbols

Your partner in matters of safety



The quality management system used by HACA LEITERN has been certified in acc. with DIN EN ISO 9001



Member of the Association of German Ladder and Mobile Scaffold Manufacturers



founding member of the European Ladder Federation

CE 0158

Checked for occupational health and safety in acc. with EC Directives and DIN-EN standards.



Czech approval for fixed, assembled ladders

Personal Protective Equipment Cat. III must be CE-approved.



Polish approval for fixed, assembled ladders



Slovakian approval for fixed, assembled ladders



Founding member of German quality control association ladders and mobile scaffolds e.V.



HACA ladders and fall arrest equipment are checked for occupational health and safety

Download center on www.haca.com

Instructions for assembly and use, control sheets, forms, certificates and structural calculations



On www.haca.com you will find access to the HACA-Configurator.

Here you can generate your own 3D image and drawing on your PC within minutes and at the end you will receive the price of the configured system, including a parts list of all components and accessories used.

If an order is placed, this configuration will of course be checked again by our competent sales team.

The program itself also checks compliance with the standards and prevents the configuration of a ladder system contrary to your standard specifications!



You can get access via our homepage www.haca.com. There is no password requirement necessary, you only have to register once.

Later, your login will be sufficient to access the portal. Here you will also find your already created configurations and can access them.

For an unrestricted and optimized use of all features of the program we recommend the application with the browser Chrome.



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