



#### **Fixed ladders**

#### Fixed ladders

Fixed ladders are perfect to provide safe and permanent access to buildings, equipment or machines also at great heights, e.g.:

- Ascent for inspection and maintenance work on buildings, machines and shelf systems
- + Emergency exits on buildings

The fixed ladders are conceptualized in a modular construction system. Even intricated multisection ladders can be assembled with a time saving up to 30%. The extensive range of accessories offers solutions for a wide range of different requirements given by on-site circumstances.



Please be advised to involve the responsible authority at the earliest point in time while you are planning the fixed ladder.



Fixed ladders with back protection bracket



Top exit for fixed ladders including an automatical self-closing safety gate

#### Shaft ladders

Our shaft ladders are available in two different widths and are made of various materials depending on the intended use, e.g.:

 + Providing safe access to sewage treatment plants, drinking water supply plants, waste disposal sites, retention basins and other kind of the ladder. of pits for inspection and maintenance purposes.

Our fixed ladder system includes a number of different access aids for safely step-onto and step-off the ladders.

DIN and GUV have among others the following requirements:

Shaft ladders have to be equipped with a holding device at its exits, e.g. holding bars or handles, to ensure a safe step-onto and step-off of the ladder.

Access aids comply with:

DIN 19572 (Regarding holding devices for entering accessible shafts)

Shaft ladders comply with:

DIN EN 14396 (Regarding fixed ladders for shafts)



Shaft ladder, 1.96 m long



Holding bar with double handle



## Standards/regulations for fixed ladders

- + DIN 18799-1 Fixed ladders for construction works
  - (Part 1: Ladders with vertical side rails, safety-related requirements and inspections) Area of application: On buildings, for maintenance and cleaning works.
- + DIN 18799-3 Fixed ladders for construction works Safety requirements and inspections (Part 3: Accessory parts)
- + DIN 14094-1 Firefighting purposes Emergency escape ladder installations

(Part 1: Escape ladders with back protection brackets, holding devices, platforms)

Area of application: Escape ladders are structural installation on buildings that can be used to rescue people in the event of danger and should always offer people a means to escape from danger by themselves - please involve the fire protection authority into the planning.

 + EN ISO 14122-4 – Safety of machinery - Permanent means of access to machinery (Part 4: Fixed ladders as vertical access to machine systems)
 Area of application: Access to stationary and mobile facilities and machineries.
 These ladders are also suitable to be used on buildings which are a part of the machinery.

Are you looking for more detailed information?

Please order our catalogue "Fixed ladders"!



#### Single-section fixed ladder



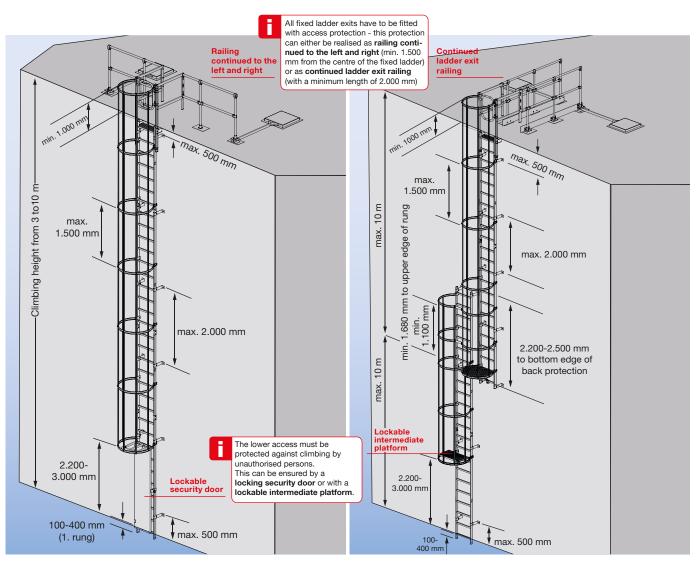
#### Multi-section fixed ladder





# Fixed ladders in accordance with DIN 18799-1 Fixed ladders for construction works

e. g. for maintenance and cleaning works on buildings



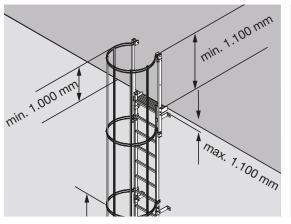
#### Important - the following standards apply for:

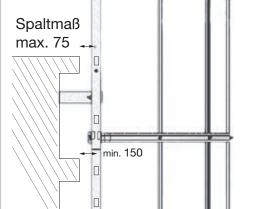
- + Ladders with a climbing height of 3 m have to be equipped with back protection brackets or access protection.
- + If the climbing height exceeds 10 m, the ladder sections have to be horizontally staggered from adjacent sections. One ladder section should not exceed the maximum length of 10 m.
- + The front edge of the rung must have a distance of 200 mm to the wall; in case of projections minimum 150 mm.
- + If it is not possible to stagger the ladder sections due to structural reasons, the ladder can be assembled as a single section exceeding 10 m with access protection and rest platform.
- + For sidewise crossovers the ladder sections must be assembled minimum 1.68 m higher.
- + If the gap dimension at the top exit is higher than 75 mm, the ladder has to be equipped with an exit step which has to be ordered separately.
- + Access protections is necessary at all exit places. This access protection can either be realised as railing continued to the left and right with a min. length of 1.500 mm or as continued ladder exit railing from the exit area with a minimum length of 2.000 mm.
- + In order to avoid a access through a hole in the railing, this must be equipped with a transition barrier.
- + It is necessary to take appropriate measures to avoid climbing onto the fixed ladder by unauthorised persons.

20



# Fixed ladders in accordance with DIN 18799-1 Fixed ladders for construction works





#### Single section fixed ladder with a climbing height of max. 10 m according to DIN 18799-1; Back protection brackets are required for climbing height 3 m and higher

Climbing height up to approx. m		4.76	5.60	6.44	7.28	8.40	9.52
Ladder length incl. exit rail approx. m		5.86	6.70	7.54	8.38	9.50	10.62
Steel galvanised	ArtNo.	836502	836212	836229	836236	836243	836250
Aluminium	ArtNo.	838650	838414	838421	838438	838445	838452
Exit rail		2	2	2	2	2	2
Ladder section 1.96 m		1	-	_	-	_	2
Ladder section 2.80 m		1	2	1	-	3	2
Ladder section 3.64 m		_	-	1	2	_	_
Ladder connector		2	2	2	2	4	6
Rigid wall anchor (gap 200 mm)		6	8	8	8	10	12
Back protection bracket, Ø 700 mm		3	4	5	5	6	7
Back protection brace, length 3.000 mm		5	7	10	10	12	15

# Multi-section fixed ladder with back protection according to DIN 18799-1 (starting with climbing height 10 m; max. 10 m climbing height per ladder section)

Climbing height up to approx. m		10.64	11.76	12.60	13.44	14.28	15.12	15.96	17.08	17.92	18.76
Ladder length incl. exit rail approx. m		11.74	12.86	13.70	14.54	15.38	16.22	17.06	18.18	19.02	19.86
Steel galvanised	ArtNo.	836106	836113	836120	836137	836144	836151	836168	836175	836182	836199
Aluminium	ArtNo.	838469	838476	838483	838490	838506	838513	838520	838537	838544	838551
Exit rail		2	2	2	2	2	2	2	2	2	2
Ladder section 1.96 m		_	2	1	_	_	_	_	_	-	-
Ladder section 2.80 m		2	1	2	3	2	1	-	3	2	1
Ladder section 3.64 m		2	2	2	2	3	4	5	3	4	5
Ladder connector		4	6	6	6	6	6	6	8	8	8
Rigid wall anchor (Gap 200 mm)		18	18	20	20	20	22	24	24	26	26
Back protection bracket, Ø 700 mm		8	9	9	10	11	11	12	13	13	14
Back protection brace, length 3.000 mm		19	21	23	24	24	28	28	28	31	33
3/4 Back protection bracket		4	4	4	4	4	4	4	4	4	4
Intermediate platform		1	1	1	1	1	1	1	1	1	1
Connector for double back protection brack	cet	2	2	2	2	2	2	2	2	2	2



# Fixed ladder according to DIN 14094-1 Emergency escape ladders

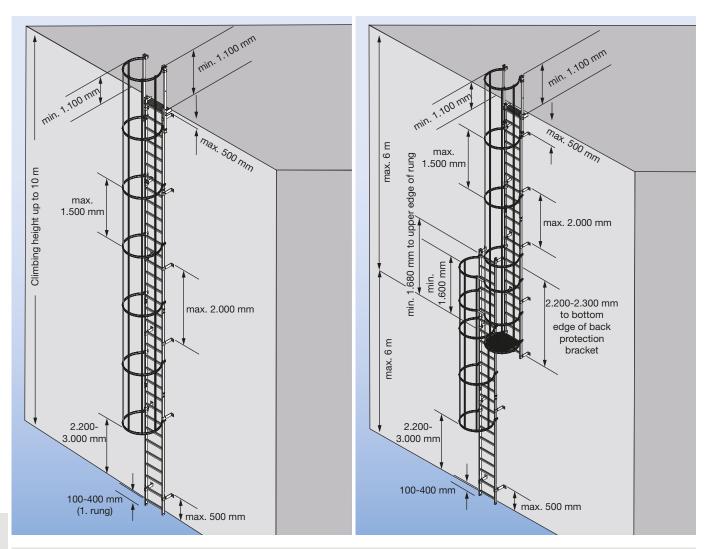
#### Areas of application

Escape ladders are structural installations on buildings that can be used to rescue people in the event of danger and should always offer people a means of escape from danger by themselves.

#### Planning and use

When planning an emergency escape ladder the relevant fire protection authority has to be involved into the planning.

If the potential climbing height exceeds 1 m, the ladder's access, exit and crossover points have to be equipped with holding devices. Requirements to access/exit points, e. g. roof edges are regulated in the building laws of the federal building regulations of the several federal states.



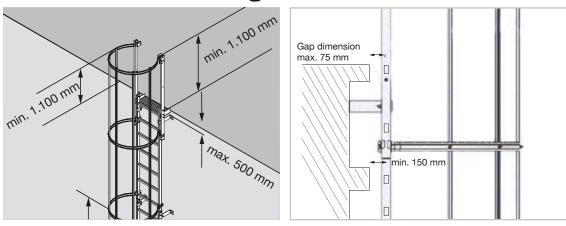
#### Important - the following standards apply for:

- + Back protection brackets are always required, access protection is not allowed.
- + If the climbing height exceeds 10 m, the ladder sections have to be horizontally staggered from adjacent sections.

  One ladder section should not exceed the maximum length of 6 m.
- + For sidewise crossovers over balcony parapets, the ladder section must be assembled minimum 1.680 mm higher.
- + If the gap dimension at the top exit is higher than 75 mm, the ladder has to be equipped with an exit step which has to be ordered separately.



# Fixed ladders according to DIN 14094-1



#### Single-section fixed ladder according to DIN 14094-1 Emergency escape ladder (for a max. climbing height of 10 m)

Climbing height up to approx. m		4.76	5.60	6.44	7.28	8.40	9.52
Ladder length incl. exit rail approx. m		5.86	6.70	7.54	8.38	9.50	10.62
Steel galvanised	ArtNo.	836502	836212	836229	836236	836243	836250
Aluminium	ArtNo.	838650	838414	838421	838438	838445	838452
Exit rail		2	2	2	2	2	2
Ladder section 1.96 m		1	_	_	_	_	2
Ladder section 2.80 m		1	2	1	_	3	2
Ladder section 3.64 m		_	_	1	2	_	_
Ladder connector		2	2	2	2	4	6
Rigid wall anchor (gap 200 mm)		6	8	8	8	10	12
Back protection bracket, Ø 700 mm		3	4	5	5	6	7
Back protection brace, length 3.000 mm		5	7	10	10	12	15

#### Multi-section fixed ladders according to DIN 14094-1 With back protection brackets (for climbing height of 10 m and more)

Climbing height up to approx. m		10.92	11.76	13.16	14.00	15.12	15.96	16.80	17.64	18.76
Ladder length incl. exit rail approx. m		12.02	12.86	14.26	15.10	16.22	17.06	17.90	18.74	19.86
Steel galvanised	ArtNo.	836007	836014	836021	836038	836045	836052	836069	836076	836083
Aluminium	ArtNo.	838568	838575	838582	838599	838605	838612	838629	838636	838643
Exit rail		2	2	2	2	2	2	2	2	2
Ladder section 1.96 m		1	1	1	1	2	1	1	1	1
Ladder section 2.80 m		4	3	3	2	3	4	3	6	2
Ladder section 3.64 m		_	1	2	3	2	2	3	1	5
Ladder connector		6	6	6	6	8	8	8	10	8
Rigid wall anchor (gap 200 mm)		18	18	26	26	28	28	28	30	36
Back protection bracket, Ø 700 mm		8	9	10	11	11	12	13	14	15
Back protection brace, length 3.000 mm		19	24	26	26	31	31	31	31	39
Back protection bracket ¾		4	4	8	8	8	8	8	8	12
Intermediate platform		1	1	2	2	2	2	2	2	3
Connector for double back protection brack	et	2	2	4	4	4	4	4	4	6

Fixed ladders | 06.7

20



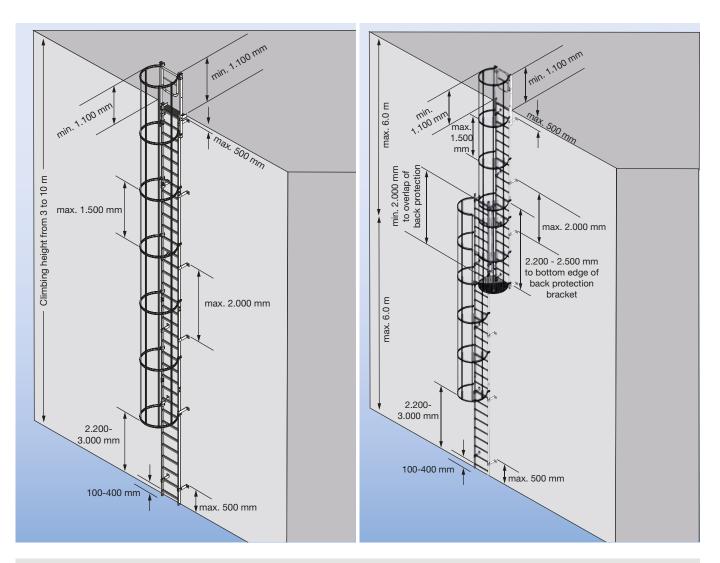
# Fixed ladders according to DIN EN ISO 14122-4 Fixed ladder for accessing machineries

#### Areas of application

Access to machines and mechanical facilities

#### Planning and use

Fixed ladders on mechanical facilities provide access for maintenance and service as well as for repair and cleaning works. These ladders are also suitable to be used on buildings which are a part of the mechanical facility.

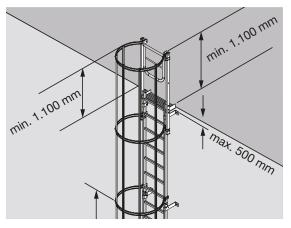


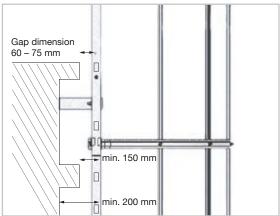
#### Important - the following standards apply for:

- + Ladders with a climbing height of 3 m have to be equipped with back protection brackets.
- + If the climbing height exceeds 10 m, the ladder sections have to be horizontally staggered from adjacent sections. One ladder section should not exceed the maximum length of 6 m.
- + Fixed ladders with access protection have to be equipped with a rest platform starting with climbing heights of 12 m.
- + Multi-section fixed ladders have to be equipped in the change area between both ladder parts with an additional handrail with article number 836366.
- + For sidewise crossovers the ladder sections must be assembled higher.
- + The gap dimension at the top exit must be between 60 mm and 75 mm; for reducing the gap dimension, please order the exit step separately.
- + If the ladder has an unsecured upper exit area, the ladder has to be fitted with rails on both sides according to DIN EN ISO 14122-3.
- + The exit of the ladder has to be equipped with a transition barrier, article number 837028.



# Fixed ladders according to DIN EN ISO14122-4





#### Single-section fixed ladder according to DIN EN 14122-4 Fixed ladder to access machineries (for a max. climbing height of 10 m)

Climbing height up to approx. m		4.76	5.60	6.44	7.28	8.40	9.52
Ladder length incl. exit rail approx. m		5.86	6.70	7.54	8.38	9.50	10.62
Steel galvanised	ArtNo.	836700	836717	836724	836731	836748	836755
Aluminium	ArtNo.	838810	838827	838834	838841	838858	838865
Exit rail		2	2	2	2	2	2
Transition barrier		1	1	1	1	1	1
Ladder section 1.96 m		1	-	_	_	_	2
Ladder section 2.80 m		1	2	1	_	3	2
Ladder section 3.64 m		-	-	1	2	_	-
Ladder connector		2	2	2	2	4	6
Rigid wall anchor (Gap 200 mm)		6	8	8	8	10	12
Back protection bracket, Ø 700 mm		3	4	5	5	6	7
Back protection brace, length 3.000 mm		5	7	10	10	12	15

#### Single-section fixed ladder according to DIN EN 14122-4 Fixed ladder to access machineries (for a max. climbing height of 10 m)

The maximum height of the individual ladder sections is 6.00 m.

Climbing height up to approx. m		10.92	11.76	13.16	14.00	15.12	15.96	16.80	17.64	18.76
Ladder length incl. exit rail approx. m		12.02	12.86	14.26	15.10	16.22	17.06	17.90	18.74	19.86
Steel galvanised	ArtNo.	836601	836618	836625	836632	836649	836656	836663	836670	836687
Aluminium	ArtNo.	838872	838889	838896	838902	838919	838926	838933	838940	838957
Exit rail		2	2	2	2	2	2	2	2	2
Transition barrier		1	1	1	1	1	1	1	1	1
Ladder section 1.96 m		-	-	-	2	-	-	1	-	-
Ladder section 2.80 m		5	4	3	3	5	4	6	7	7
Ladder section 3.64 m		-	1	3	2	2	3	1	1	2
Ladder connector		6	6	6	8	8	8	10	10	10
Rigid wall anchor (Gap 200 mm)		18	18	26	26	28	28	28	28	34
Back protection bracket, Ø 700 mm		8	9	9	10	11	11	12	13	13
Back protection brace, length 3.000 mm		20	21	27	28	31	31	33	34	39
Back protection bracket ¾		4	4	8	8	8	8	8	8	12
Intermediate platform		1	1	2	2	2	2	2	2	3
Handrail for change area		1	1	2	2	2	2	2	2	3
Connector for double back protection bracket	et	2	2	4	4	4	4	4	4	6

Fixed ladders | 06.7

20



#### Ladder section 0.84 m

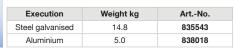
Execution	Weight kg	ArtNo.
Steel galvanised	4.4	837103
Aluminium	1.5	838308



Execution	Weight kg	ArtNo.
Steel galvanised	10.3	835536
Aluminium	3.5	838001



#### Ladder section 2.80 m





#### Ladder section 3.64 m

Execution	Weight kg	ArtNo.
Steel galvanised	19.2	835550
Aluminium	6.5	838025



#### Ladder connector

Execution	Weight kg	Length mm	ArtNo.
for Steel galvanised	0.2	100	835529
for Aluminium	0.2	100	838032
for Steel galvanised	2.3	1.000	835482
for Aluminium	2.3	1.000	838049



#### Single-sided exit rail

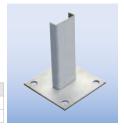
Execution	Weight kg	ArtNo.
for Steel galvanised	3.7	835772
for Aluminium	3.7	838209



#### Foot plate

- + To anchor the fixed ladder to the ground
- + Size 120 x 120 mm
- + Screw hole: Ø 15 mm

Execution	Weight kg	ArtNo.
Steel galvanised	1.2	835123
Aluminium	0.4	838131



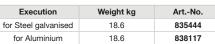
#### Back protection bracket Ø 700 mm

+ With pre-assembled fixtures

Execution	Weight kg	ArtNo.
Steel galvanised	2.4	835420
Aluminium	0.8	838056



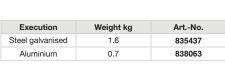
#### Intermediate platform





#### 3/4 back protection bracket

+ With pre-assembled fixtures





# Connector for double back protection bracket

+ Connects two back protection brackets 3/4 execution

Execution	Weight kg	ArtNo.
Steel galvanised	0.6	835413
Aluminium	0.1	838070



#### Back protection brace.

- + 3.000 mm long
- + Brace connector made of metal, clamp screw and plastic blade plug are included

Execution	Weight kg	ArtNo.
Steel galvanised	2.5	835567
Aluminium	1.1	838094



#### Handrail in the change area

- + Necessary between the ladder rails according to DIN EN ISO 14122-4
- + Suitable for steel and aluminium ladder

Execution	Weight kg	ArtNo.
Steel galvanised	9.0	836366





#### Base platform

- + Steel galvanised
- + With railing on one longside and on one front side
- In order to conform to DIN 14094-1, it is mandatory to order the extra railing art.-no. 837547. Between wall anchor and back protection cage no gap over 120 mm is there.
- + Grating with slip resistance class R12
- + Height of toeboard is 100 mm according to DIN 14094-1 (2017)

#### Extension platform

- + Steel galvanised
- + With grating and one bracket
- + With rails on one longside and with railing connector
- + The extension units can be screwed together side by side in any number to set up a larger platform
- + In general the base platform is attached at the end as the last section

#### Extra railing

- + Closes the gap between platform and back protection cage
- + Variable for all wall anchors







Size	in mm	500 x 1.000	1.000 x 1.000
Weight	approx. kg	41.6	63.0
ArtNo.		835581	837004



Execution	Steel galvanised		
Weight	approx. kg 4.0		
ArtNo.		837547	

#### Crossover

+ Steel galvanised grating

**Recommendation:** For the mounting of the ladder adjustable wall anchors or foot plates are recommended and if necessary the suitable ladder section has to be ordered separately.

#### Exit railing

- + Angled
- + Projection 450 mm



Execution	ArtNo.
for Steel galvanised 450 mm	836304
for Steel galvanised 750 mm	836311
for Steel galvanised 900 mm	836328
for Steel galvanised 1.300 mm	836373
for Aluminium 450 mm	836335
for Aluminium 750 mm	836342
for Aluminium 900 mm	836359
for Aluminium 1.300 mm	836380



Execution	ArtNo.
for Steel galvanised	835314
for Aluminium	838216



#### Exit step

- + To reduce the gap dimension at the exit
- + Size approx. 540 x 150-300 mm
- + Consists of perforated rungs
- + Corresponds to the DIN EN ISO 14122-4 (2016)

Size of gap in mm	Execution	ArtNo.
150	Steel galvanised	836267
200		836274
250		836281
300		836298



#### Transition barrier

- Self-locking barrier according to DIN EN ISO 14122-4 (2016)
- + Mandatory at the exit opening according to DIN EN ISO 14122-4



+ Self-locking barrier according to DIN EN ISO 14122-4 (2016)

Lateral transition barrier

- + Only ladde
- + Mand to DII
- + Trans left o

suitable er with b datory at IN EN ISC	for the lateral e ack protection of the exit opening 14122-4 rrier can be affin	cage g according	打火	
cution	Weight in	ArtNo.	VX	THI
alvanised	4.8	837042		111/1

#### Rest platform, foldable

+ Easy to use with foot

Execution

Steel galvanised

Execution

Steel galvanised

- + Suitable for aluminium and steel ladder
- + In hinged-up condition the rest platform is located behind the ladder without disturbing the transition

Weight kg

Art.-No.

837028

Art.-No.

837011

Art.-No.

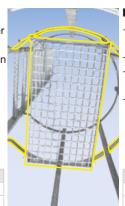
835666 838148



Execution	Weight in	ArtNo.
Steel galvanised	4.8	837042

## Foldable intermediate platform

- + Rest platform for single-section fixed ladder
- + Size 625 x 350 mm
- + Integrated into an additional back protection bracket
- + Can be locked with a long U-lock (not included)

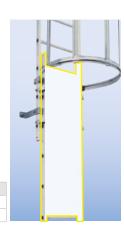


#### Emergency escape ladder

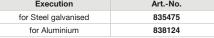
+ With automatic release mechanism from the top of the aluminium ladder

Weight in kg

- Effective length to floor 3.06 m
- Distance between back protection bracket and floor max. 3.00 m
- Minimum height of the fixed ladder must be more than 6.5 m over ground



Execution	ArtNo.
for Steel galvanised	835475
for Aluminium	838124



#### Access barrier

- + Alternative to emergency escape ladder with small climbing heights
- + Grid can only be unlocked from above
- + Swivels out automatically to the side after unlocking



#### Security door

Execution for Steel galvanised

for Aluminium

- Door swivels out optionally to the left or to
- + With access barrier at the top
- + Lockable with a padlock (not included)
- + Adjustable fastener of the security door to the back protection avoids touching the wall
- + Can also be used with an assembled access protection rail
- + Unauthorised ascending will be prevented

Execution	Weight in kg	ArtNo.
Aluminium	12,1	837578



Execution Weight in kg Art.-No. for Steel galvanised 837035



Execution	Illustration	Base plate in mm	Weight in kg	ArtNo.
Wall anchor 100 – 150 mm		120	1.5	835192
adjustable	#	200	2.7	835253
	1	510	2.9	835086 for Steel
Wall anchor 150 mm rigid	And the last of th	340		838179 for Aluminium 835109 for Steel
	<i>₽</i> 4	60	2.7	838155 for Aluminium
Wall anchor 150 – 200 mm	<del>[]</del>	120	1.6	835208
adjustable	<b>A</b>	200	2.8	835277
		65	1.0	835239
Wall anchor 200 mm		510	3.2	835093 for Steel 838186 for Aluminium
	5	340	2.9	835116 for Steel 838162 for Aluminium
Wall anchor 189 – 253 mm	-	65	1.4	835246
Wall anchor 200 – 270 mm		120	1.9	835215
	### ###	200	3.4	835260
Wall anchor 270 – 400 mm		120	2.2	835222
	<del> </del>	200	3.8	835284
Wall anchor 500 mm		440	4.5	835338 for Steel
Wall allollol ood lillil	Ç	120	4.0	838193 for Aluminium
		535		837561 for Steel
Wall anchor 350 – 550 mm		S 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	16.0	838254 for Aluminium
Wall anchor 500 – 750 mm		501	6.4	837554 for Steel
Wall anchor laterally		620		837639 for Steel
on pillar 350 – 550 mm		00 000 III	26.5	838261 for Aluminium
			READS.	

Further possibilities for wall mountings are available in our catalogue "Fixed ladders" or on our website under www.krause-systems.co.uk/products/product-categories/fixed-ladders





#### Shaft ladders

- + Made of hot dipped steel galvanised or stainless steel, pickled and passivated
- + According to DIN EN 14396 and Construction Product Regulation (BauPVO) 305/2011 (EU), type tested
- + Access aids according to DIN 19572
- + Clearance width 300 mm/400 mm
- + Rectangular side rails 50 x 20 mm, non-slip perforated rungs
- + Shaft ladders made of glass-fibre reinforced plastic are available on request
- + Attachment of an access protection rail is only allowed in case of clearance widths of 400 mm



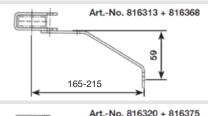
Ladders with 4 – 9 rungs need 4 wall anchors, ladders with 10 – 15 rungs need 6 wall anchors, ladders with 16 – 24 rungs need 10 wall anchors.

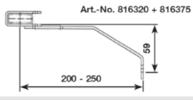
#### Shaft ladders made of steel galvanised

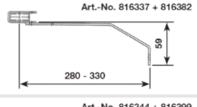
Number of rungs	Length approx. m	Outside width mm	Clearance width mm	ArtNo.	Outside width mm	Clearance width mm	ArtNo.
4	1.12	340	300	815798	440	400	815910
5	1.40	340	300	815804	440	400	815927
6	1.68	340	300	815811	440	400	815934
7	1.96	340	300	815828	440	400	815941
8	2.24	340	300	815835	440	400	815958
9	2.52	340	300	815842	440	400	815965
10	2.80	340	300	815859	440	400	815972
11	3.08	340	300	815866	440	400	815989
12	3.36	340	300	815873	440	400	815996
13	3.64	340	300	815880	440	400	816009
14	3.92	340	300	815897	440	400	816016
15	4.20	340	300	815903	440	400	816023

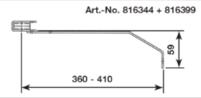
# Art.-No. 816306 + 816351

Accessories: Wall anchor









#### Shaft Ladders made of stainless steel V4A (1.4571)

					_	_	
Number of rungs	Length approx. m	Outside width mm	Clearance width mm	ArtNo.	Outside width mm	Clearance width mm	ArtNo.
4	1.12	340	300	816030	440	400	816153
5	1.40	340	300	816047	440	400	816160
6	1.68	340	300	816054	440	400	816177
7	1.96	340	300	816061	440	400	816184
8	2.24	340	300	816078	440	400	816191
9	2.52	340	300	816085	440	400	816207
10	2.80	340	300	816092	440	400	816214
11	3.08	340	300	816108	440	400	816221
12	3.36	340	300	816115	440	400	816238
13	3.64	340	300	816122	440	400	816245
14	3.92	340	300	816139	440	400	816252
15	4.20	340	300	816146	440	400	816269

#### Accessories for shaft ladders

Fastening material for shaft ladders	ArtNr.
Foot plate V4A stainless steel, (pc.)	816917
Ladder connectors for extensions, V4A stainless steel (set)	816283
Wall anchor Standard 150 mm. Steel galvanised (pc.)	816306
Wall anchor adjustable 165–215 mm. Steel galvanised (pc.)	816313
Wall anchor adjustable 200-250 mm. Steel galvanised (pc.)	816320
Wall anchor adjustable 280–330 mm. Steel galvanised (pc.)	816337
Wall anchor adjustable 360-410 mm. Steel galvanised (pc.)	816344
Wall anchor Standard 150 mm. V4A. (pc.)	816351
Wall anchor adjustable 165–215 mm. V4A. (pc.)	816368
Wall anchor adjustable 200–250 mm. V4A. (pc.)	816375
Wall anchor adjustable 280–330 mm. V4A. (pc.)	816382
Wall anchor adjustable 360-410 mm. V4A. (pc.)	816399

#### Access aids

#### Holding bar with double handle

- + Made of V4A (1.4571) stainless steel, pickled and passivated
- High economic efficiency due to its mobile application as only the sleeve is permanently left in the shaft

Length in m	Weight in kg	ArtNo.
1.60	3.5	816405



#### Sleeve

- + Made of V4A (1.4571) stainless steel, pickled and passivated (round) or steel galvanised (quadrangular)
- + Suitable to be used with access aid, article no. 816405

Execution	Weight in kg	ArtNo.
V4A	1.1	816412
Steel galvanised	1.1	816429



# Holding bar with single-sided handle

- + Made of V4A (1.4571), stainless steel, pickled and passivated
- + Retractable handle to be attached to the wall
- + Sleeve included

Execution	Length in m	Weight in kg	ArtNo.
V4A	1.50	4.5	816436
Steel galvanised	1.50	4.5	816443



#### Holding bar with single-sided handle

- + Made of V4A (1.4571) stainless steel, pickled and passivated or steel galvanised
- + Rectractable handle to be attached to the ladder's side rails with the size of 50 x 20 until 60 x 25 mm (not suitable for glass-fibre reinforced plastic shaft ladders)
- + Sleeve included

Execution	Length in m	Weight in kg	ArtNo.
V4A	1.50	5.0	816450
Steel galvanised	1.50	5.0	816467



#### **Holding frame**

- + Made of V4A (1.4571) stainless steel, pickled and passivated or steel galvanised
- Rectractable handle, supplied with fittings for side rails with a size of 50 x 20 mm and external ladder widths of 340 and 440 mm

Execution	Ladder width mm	Usable length m	ArtNo.
V4A stainless steel	340	1.10	816474
Steel galvanised	340	1.10	816481
Execution	Leiterbreite mm	Usable length m	ArtNo.
Execution V4A stainless steel		Usable length m	ArtNo. 816498



#### Accessories

#### Express anchor

 + We recommend express anchors to mount the sleeves to the shaft wall (building authority approved), minimum thickness of concrete 220 mm

No illustration

ArtNo.
816511



## Access protection equipment

#### Access protecting rail with connecting link

Execution	Length in m	ArtNo.
Ota al malmania a d	1.40	837202
	1.96	837219
Steel galvanised	2.80	837226
	3.64	837233
	1.40	837240
Stainless Steel	1.96	837257
V4A	2.80	837264
	3.64	837271



#### Rail attachment for ladder rung

- + To mount access protection rails to the ladder
- + To be attached in spacings of 1.68 m, for shorter ladders a minimum of four mounting points are required

Execution	Sprossentiefe	ArtNo.
for Steel galvanised	25-35 mm	837318
for Stainless Steel, V4A	25-35 mm	837332
for Aluminium	28x28 mm	837493



#### **Climbing stop**

+ Applicable as stop for the safety runner to avoid unintentional sliding off the rail







- + Two indepentendly arrest functions for fast recuing in case of access to the backside
- + It is only permitted for safety harness with A-marked breast eyelet
- + Spring-mounted axis for smoothly running over rail edges

ArtNo.
837608



Execution	Function	ArtNo.
Stainless Steel,	Rigid	837387
V4A	Removable	837479

#### Safety harness with breast eyelet

- + Certificated according to DIN EN 361
- + Catching eyelets in breast and shoulder region
- + Breast eyelet can also be used for rapelling and rescuing
- + Width of the belt strap 45 mm

Weight	ArtNo.
1.4 kg	837615



#### Rest platform, foldable

- + After a climbing height of 12 m (DIN EN ISO 14122-4) or 10 m (DIN 18799-1) a rest platform has to be installed
- Will be screwed-on to the access protecting rail from behind

	Ť	9.00
1334	1	0.77.6
		_

Execution	ArtNo.
Steel galvanised	837455
Stainless Steel, V4A	837462

#### Exit device

- + To remove the climbing safety runner at the favoured exit destination
- + A track with a length of 149 m is built-in between the access protecting rails
- + Rail connectors are included
- + Applicable for rung intervals of 270-315 mm with a depth of the rungs of 25-45 mm

7431
7448



#### Interchange device

- + Aluminium anodised
- + For the exit e.g. on roofs
- + 180° bilaterally rotatable upper rail piece (350 mm)
- + In case of rung depths over 25 mm additional parts are required
- + Access protection rail until rotary plate has to be ordered separately

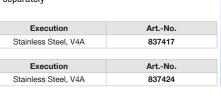
Length in m	ArtNo.
2.25	927256



#### Shaft access aid

- + V4A stainless steel
- + Base part with access aid (see small image on the right), article no. 837424 has to be ordered separately

Execution	ArtNo.
Stainless Steel, V4A	837417
Execution	ArtNo.
Stainless Steel, V4A	837424





Are you looking for more detailed information?

Please order our catalogue "Fixed ladders"!



KRAUSE-tip: The base part of the access aid is made of V4A stainless steel. It remains at the shaft ladder and can only be used together with the shaft access aid.