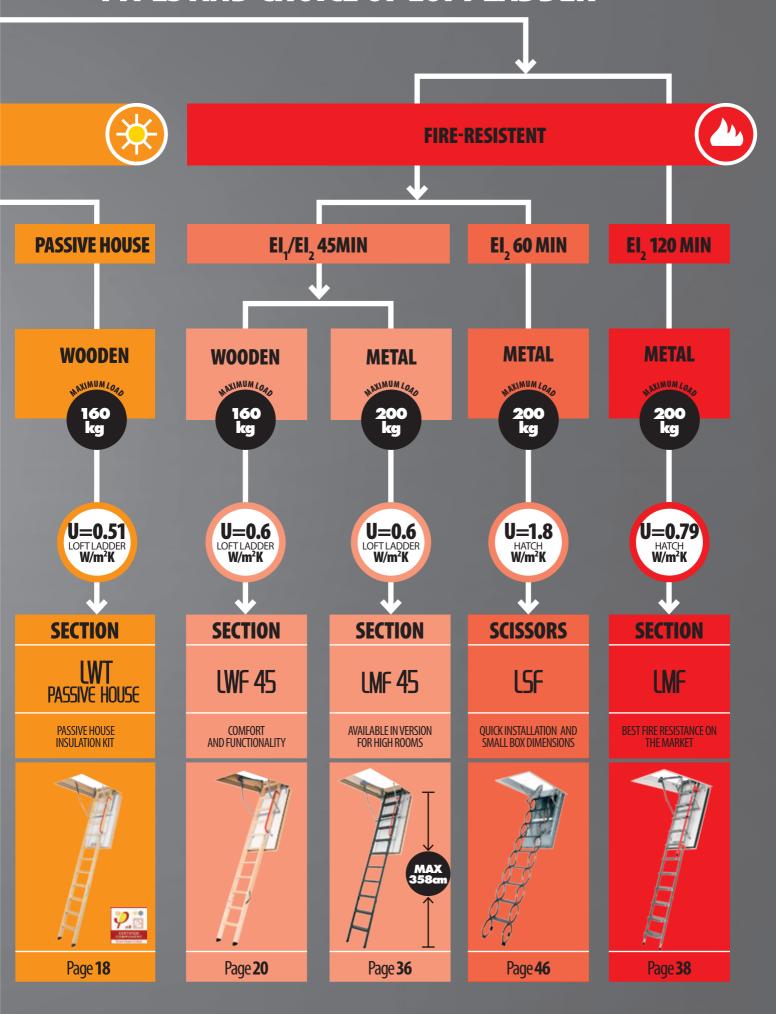


TYPES AND CHOICE OF LOFT LADDER



L-SHAPED COMBINATION DOORS

TYPES AND CHOICE OF L-SHAPED DOOR

In addition to having a wide range of loft ladders FAKRO also manufactures combination loft doors for installation in walls. These are used to provide access to unused space behind a wall or under stairs. Three models are available, the first and most basic model, the **DWF** insulating door having a 3.6cm thick sash. For added thermal efficiency and airtightness the **DWT** provides a U-value of 0.6 and offers Class 4: EN 12207 performance. Where fire resistance is required, the **DWF** offers double-sided protection (fire classification El₁45 EN 13501-2), as well as exceptional airtightness and thermal insulation.

INSULATED	HIGHLY ENERGY EFFICIENT	FIRE-RESISTANT
DWK	DWT	DWF
U=1.1* W/m²K	U=0.6** W/m²K	U=0.64 W/m²K
page 48	page 50	page 52

^{*} internal tests of the middle part of the sash

^{**} manufacturer's internal tests for the sash

^{***} manufacturer's internal testing



FOLDING LOFT LADDERS

Create safe and easy access to your loft space without the need for costly and oversized staircases. FAKRO loft ladders satisfy all technical and safety requirements whilst maximizing ease of use and comfort.

SPACE SAVINGS

Thanks to their clever design, FAKRO loft ladders require little "swing space". The ladder is mounted on the hatch so that, when folded, its sections are neatly concealed inside the loft space.

EASE OF INSTALLATION

To make installation fast and easy, FAKRO loft ladders feature a "click" fixing, enabling some ladders to be fitted by a single person. Additionally, FAKRO loft ladders can be adjusted to suit any ceiling height.

EASE OF OPERATION

The innovative spring-assisted opening mechanism (on some models ladder sections are also sprung) greatly eases ladder use. An opening rod is also supplied with every ladder.

ADDITIONAL EQUIPMENT

In order to maximise comfort and accelerate installation of the loft ladder, additional accessories are available.

WARRANTY

FAKRO loft ladders come with a **3-year warranty.**















a handrail as standard.









Light hatch weight and method of 'click fixing' makes installation very simple.



stile ends (only in 3-section version)



The **LWK Komfort** ladder's innovative design ensures ease of use, a high insulation value and quick installation. It is equipped with an aesthetically pleasing, smooth white finish to the hatch, and

handrail





non-slip treads set flush with ladder strings



peripheral



easy installation



possibility of installing additional accessories, pages 54-59

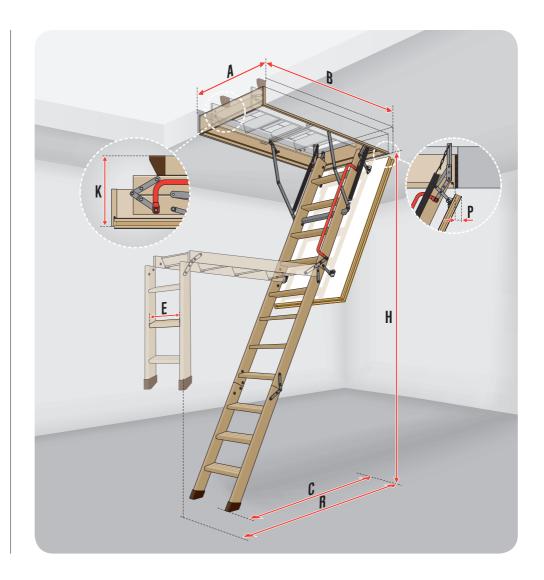
Technical specification:

permissible load of 160 kg hatch heat transmission coefficient $U = 1.1 \text{ W/m}^2 \text{K}$ insulation thickness 3 cm hatch thickness 3.6 cm





LWK KOMFORT LADDER DIAGRAM



LWK Komfort LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	55x111	60x94	60x100	60x111	60x120	60x130	70x94	70x100	70x111	70x120	70x130	70x140	60x130	60x140	70x130	70x140		
Maximum room height [cm]	Н			28					30						305				
Minimum room height [cm]*	H _{min.}	232	2	50		232		2	50		23	32			24	46			
Box external dimensions [cm]		53 x 109.4	58x92.4	58 x 98.4	58 x 109.4	58 x 118.4	58 x 128.4	68x92.4	68 x 98.4	68 x 109.4	68 x 118.4	68 x 128.4	68 x 138.4	58 x 128.4	58 x 138.4	68 x 128.4	68 x 138.4		
Internal box dimensions [cm]		49 x 105	54x88	54x94	54 x 105	54x114	54 x 124	64x88	64x94	64 x 105	64 x 114	64 x 124	64 x 134	54 x 124	54 x 134	64 x 124	64 x 134		
Folded ladder height [cm]	K	27	3	5		27		35			2	27							
Swing space [cm]	R	153	1.	28	153	1:	56	128		153	153 156			175					
Distance after ladder unfolding [cm]	C	113	1	14	113	1.	20	1	14	113		120			13	35			
Hatch retraction after opening [cm]	P									4									
Box height [cm]									1	4									
Number of segments		3	4	4		3		4	1				3	3					

LADDER PARAMETERS

Tread length [cm]	E	30	34
Tread width [cm]			8
Distance between treads [cm]			25
Tread thickness [cm]			2

 $^{{\}color{red}^{*}} for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions$

LOFT LADDER DIMENSIONS



For LWK Komfort non-standard sizes page 24







stile ends



white hatch





handrail



non-slip treads



peripheral seal



system of quick installation in the ceiling



possibility of installing additional accessories pages 54-59

Technical specification:

permissible load of 160 kg hatch heat transmission coefficient $U = 1.1 \text{ W/m}^2\text{K}$ insulation thickness 3 cm hatch thickness 3.6 cm





LWZ PLUS LADDER DIAGRAM



LWZ Plus LOFT LADDER DIMENSIONS

LWZ F IUS LOI I LADDLK DI	MILIAN	IONS								
Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140		
Maximum room height [cm]	Н		2	80			305			
Minimum room height [cm]*	H _{min.}		2	32			246			
Box external dimensions [cm]		58.8 x 118.8	58.8x118.8 68.8x118.8 68.8x128.8 68.8x138.8 58.8x128.8 68.8x128.8 68.8x12							
Internal box dimensions [cm]		54 x 114	64x114	64 x 124	64x134	54 x 124	64x124	64 x 134		
Folded ladder height [cm]	K		27							
Swing space [cm]	R		1:	56			175			
Distance after ladder unfolding [cm]	C		1.	20			135			
Hatch retraction after opening [cm]	P				4					
Box height [cm]					14					
LADDER PARAMETERS										
Tread length [cm]	E				34					
Tread width [cm]			8							
Distance between treads [cm]					25					
Tread thickness [cm]					2					

^{*} for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions

LOFT LADDER DIMENSIONS

	60 x 120	70 x 120	70x130	70x140	60x130	70x130	70 x 140
н		28	30			305	
	865701	965711	865712	865713	865751		865754
	Н	н	H 22	H 280	H 280	H 280	



WOODEN LOFT LADDERS

WOODEN SECTION LOFT LADDERS







double system of "seals" guarantees perfect tightness



controls hatch movement and whilst opening, automatically moves away from the ladder providing added stability and ease of use.









Unloading mechanism facilitates folding and unfolding the ladder



Additional handrail ensures safety and comfort of use



Light hatch weight and method of 'click fixing' makes installation very simple.

LWL Extra wooden loft ladders in new design with increased insulation parameters. LWL Extra for increased security and comfort of use has been equipped with an additional handrail mounted on the middle folding section and unloading mechanism that supports folding and unfolding the ladder.



Energy-efficient, 5.6cm thick hatch equipped with lock perfectly prevents heat loss.

* manufacturer's internal research



stile ends



easy installation



white hatch



non-slip treads set flush with ladder strings



two seals



ladder unloading mechanism



two handrails



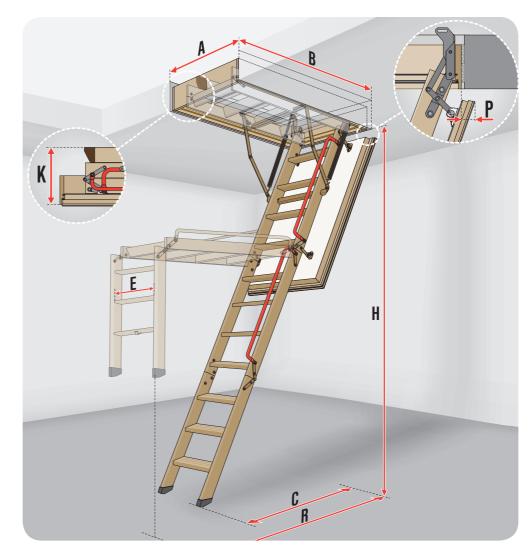
possibility of installing additional accessories pages 54-59 Technical specification:

permissible load 160 kg loft ladder heat transmission coefficient U=0.74 W/m²K insulation thickness 5cm hatch thickness 5.6





LWL EXTRA LADDER DIAGRAM



LWL EXTRA LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140	
Maximum room height [cm]	Н		305						
Minimum room height [cm]*	H _{min.}	260 280							
Box external dimensions [cm]		58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4	58 x 128.4	68 x 128.4	68 x 138.4	
Internal box dimensions [cm]		54x114	64x114	64 x 124	64 x 134	54 x 124	64 x 124	64x134	
Folded ladder height [cm]	K				30				
Hatch retraction after opening [cm]	R		15	56			175		
Distance after ladder unfolding [cm]	C		10	20			135		
Box height [cm]					14				
Hatch retraction after opening [cm]		6							
LADDER PARAMETERS									

Tread length [cm]	E	30	34	30	34
Tread width [cm]			8		
Distance between treads [cm]			25		
Tread thickness [cm]			2		

^{*} for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions

Commercial sizes [cm]		60x120	70x120	70x130	70x140	60x130	70x130	70x140
					ш			ш
Doom hoight [cm]			21	200			205	
Room height [cm]	Н			80			305	
Code		867901	867911	867912	867913	867951	867953	867954
3 1 1				867912	867913	867951		867954



WOODEN SECTION LOFT LADDERS





Double system of seals guarantees perfect tightness

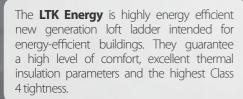








Light hatch weight and method of 'click fixing' makes installation very simple.





Short distance between the top tread and attic floor.



Highly energy-efficient, 6.6cm thick hatch prevents heat loss, making significant saving on energy bills.



stile ends (only in 3-section version)



white hatch



non-slip treads set flush with ladder strings



two seals



easy installation



handrail



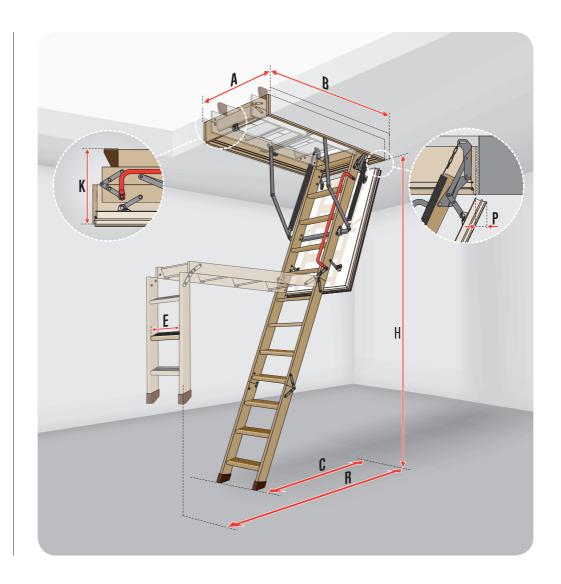
possibility of installing additional accessories pages 54-59 Technical specification:

maximum load of 160 kg loft ladder heat transmission coefficient U = 0.68 W/m²K insulation thickness 6 cm hatch thickness 6.6 cm





LTK ENERGY LADDER DIAGRAM



LTK ENERGY LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	55x100	60x100	70x100	60x120	70x120	70x130	70x140	60x130	70x130	70x140	
Maximum room height [cm]	Н				280				305			
Minimum room height [cm]*	H _{min.}		253			2:	35			243		
Box external dimensions [cm]		53x98.4	58x98.4	68x98.4	58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4	58 x 128.4	68 x 128.4	68 x 138.4	
Internal box dimensions [cm]		49x94	54x94	64x94	54x114	64 x 114	64 x 124	64 x 134	54 x 124	64 x 124	64 x 134	
Folded ladder height [cm]	K		42									
Swing space [cm]	R		136			16	54					
Distance after ladder unfolding [cm]	C		123			1.	29			139		
Hatch retraction after opening [cm]	Р						3					
Box height [cm]			18									
Number of segments			4					3				

LADDER PARAMETERS

Tread length [cm]	E	30	34
Tread width [cm]			8
Distance between treads [cm]			25
Tread thickness [cm]			2

st for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions

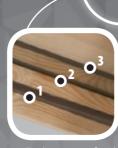
LOFT LADDER

Commercial sizes [cm]		55x100	60x100	70x100	60x120	70x120	70x130	70x140	60x130	70x130	70x140
		ш	_	_							
									_		_
Room height [cm]	Н				280					305	
Code		864720	864706	864716	864701	864711	864712	864713	864751	864753	864754



WOODEN SECTION LOFT LADDERS

LWT













The highly efficient **LWT** loft ladder is recommended for use in energy-efficient buildings. Its excellent level of insulation significantly reduces heat loss and energy bills.





polystyrene insulation to provide an excellent barrier and reduce heat loss.



stile ends (only in 3-section version)



white hatch



non-slip treads set flush with ladder strings



three seals



easy installation



handrail



possibility of installing additional accessories pages 54-59

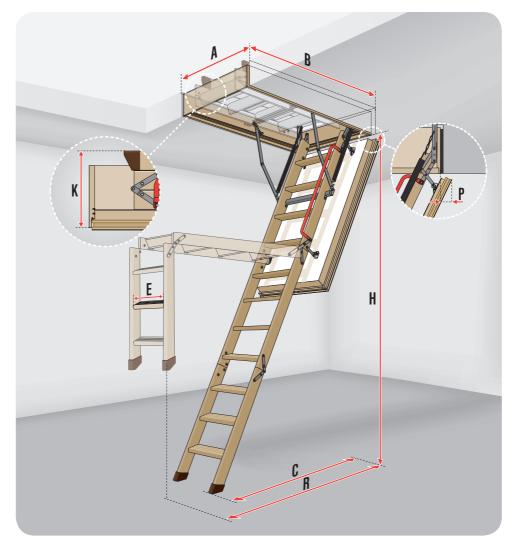
Technical specification:

permissible load of 160 kg loft ladder heat transmission coefficient U = 0.51 W/m²K insulation thickness 7.4 cm hatch thickness 8 cm





LWT LOFT LADDER DIAGRAM



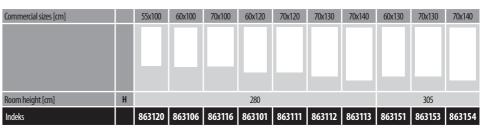
LWT LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	55x100	60x100	70x100	60x120	70x120	70x130	70x140	60x130	70x130	70x140	
Maximum room height [cm]	Н				280				305			
Minimum room height [cm]*	$\mathbf{H}_{\mathrm{min.}}$		253			2	34			242		
Box external dimensions [cm]		53 x 98.4	58x98.4	68 x 98.4	58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4	58 x 128.4	68 x 128.4	68 x 138.4	
Internal box dimensions [cm]		49x94	54x94	64x94	54x114	64 x 114	64 x 124	64 x 134	54 x 124	64 x 124	64x134	
Folded ladder height [cm]	K		43.5			3	6	36				
Swing space [cm]	R		136			10	64		178			
Distance after ladder unfolding [cm]	C		123			1.	30		137			
Hatch retraction after opening [cm]	P					4	.5					
Box height [cm]						2	2					
Number of segments			4					3				

LADDER PARAMETERS

Tread length [cm]	E	30	34
Tread width [cm]			8
Distance between treads [cm]			25
Tread thickness [cm]			2

 $[\]hbox{* for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions}$





LOFT LADDERS WITH WOODEN FOLDING SECTION

NEW!

















MAN



polystyrene insulation to provide an excellent barrier and reduce heat loss.





The **LWT Passive House** loft ladder is a technically complex design specifically developed for the demands of such energy-efficient construction standards. It is installed with a kit which connects the ladder to the ceiling to guarantee a perfect seal and insulation without thermal bridges. It comes with Passive House certification.



stile ends



white hatch





three seals



handrail



PASSIVE HOUSE Insulation kit



non-slip treads set flush with ladder strings



easy installation



possibility of installing additional accessories pages 54-59

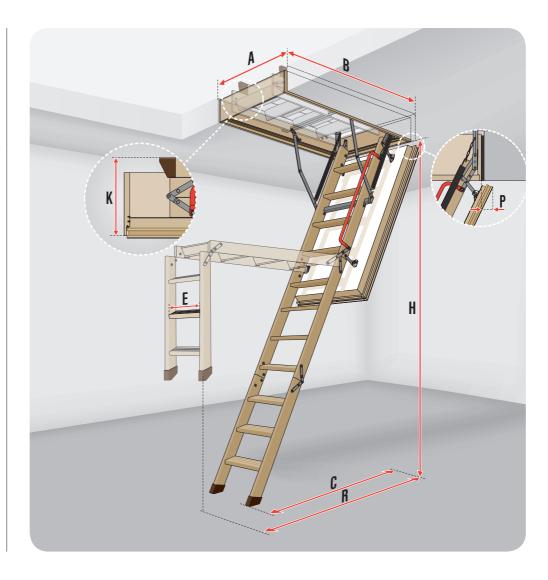
Technical specification:

permissible load of 160 kg loft ladder heat transmission coefficient U = 0.51 W/m²K insulation thickness 7.4 cm hatch thickness 8 cm





LWT PASSIVE HOUSE LOFT LADDER DIAGRAM



LWT PASSIVE HOUSE LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	62x122	72x122	72x132	72x142	62x132	72x132	72x142	
Maximum room height [cm]	Н		2	30		305			
Minimum room height [cm]*	H _{min.}		2	34		242			
Box external dimensions [cm]		58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4	58 x 128.4	68 x 128.4	68 x 138.4	
Internal box dimensions [cm]		54x114	64x114	64 x 124	64x134	54 x 124	64 x 124	64 x 134	
Folded ladder height [cm]	K				36				
Swing space [cm]	R		10	54		178			
Distance after ladder unfolding [cm]	C		1.	27			137		
Hatch retraction after opening [cm]	P	4.5							
Box height [cm]		22							
I ADDER PARAMETERS									

LADDER PARAMETERS

Tread length [cm]	E	34
Tread width [cm]		8
Distance between treads [cm]		25
Tread thickness [cm]		2

^{*} for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions

LOFT LADDER

Code		8665AE	8665AF	8665AG	8665AH	8665AJ	8665AK	8665AL
Room height [cm]	Н		28	80			305	
		Ш				Ш		
Commercial sizes [cm]		62x122	72x122	72x132	72x142	62x132	72x132	72x142





LOFT LADDERS WITH WOODEN FOLDING SECTION

LWF 45 FIRE-RESISTANT







The **LWF 45**, a new generation of fire resistant loft ladders which perfectly combines a **high level of fire protection** with comfortable and safe access to the loft. Special hatch design and materials used provide a **45-minute** protection against fire penetration from the space where the loft ladder was installed. **(EI, 45/EI, 45)**.



Triple system of seals guarantees perfect airtightness



Short distance between the top tread and loft floor.



The hinge controls hatch movement, and as its opened, moves the hatch away from the ladder's treads. Resulting in increased space and easy operation.



Insulated and finished in white on both sides, the hatch is also equipped with an expandable seal. When this seal is exposed to high temperatures, it expands and prevents fire from breaching the hatch

* manufacturer's internal research



stile ends (only in 3-section version



handrail



fire resistant hatch on one side



non-slip treads set flush with ladder strings



three seals



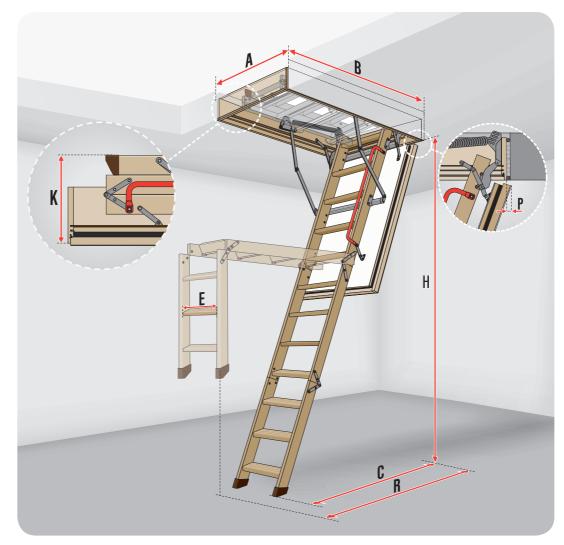
possibility of installing additional accessories pages 54-59 Technical specification:

maximum load of 160 kg loft ladder heat transmission coefficient U = 0.6 W/m²K Fire resistance class El₁/El₂=45minutes insulation thickness 7.4 cm hatch thickness 8 cm





LWF 45 LOFT LADDER DIAGRAM



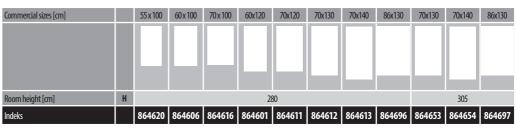
LWF 45 LOFT LADDER DIMENSIONS

AxB	55 x 100	60 x 100	70 x 100	60x120	70x120	70x130	70x140	86x130	70x130	70x140	86x130
Н				28	30				305		
H _{min.}		253				234			242		
	53 x 98	58 x 98	68 x 98	58 x 118	68 x 118	68 x 128	68x138	84x128	68x128	68 x 138	84 x 128
	49 x 94	54x94	64x94	54x114	64 x 114	64 x 124	64 x 134	80 x 124	64 x 124	64x134	80 x 124
K		44		37							
R		138		164					178		
C		126			129					139	
P						3					
						22					
		4					3	3			
	H H _{min.} K R	H H _{min.} 53x98 49x94 K R C	H H _{min.} 253 53x98 58x98 49x94 54x94 K 44 R 138 C 126 P	H H _{min.} 253 68x98 68x98 49x94 54x94 64x94 K 44 R 138 C 126 P	H 2253 253 253 253 253 253 253 253 253 25	H 280 H _{min.} 253 53x98 58x98 68x98 58x118 68x118 49x94 54x94 64x94 54x114 64x114 K 44 R 138 C 126 P	H 280 H _{min.} 253 234 53x98 58x98 68x98 58x118 68x118 68x128 49x94 54x94 64x94 54x114 64x114 64x124 K 44 R 138 164 C 126 129 P 3 3	H 253 234 234 234 253 234 234 253 234 253 234 2538 253 254 254 254 254 254 254 254 254 254 254	H 280 H _{min.} 253 234 53x98 58x98 68x98 58x118 68x118 68x128 68x128 68x138 84x128 49x94 54x94 64x94 54x114 64x114 64x124 64x134 80x124 K 44 37 R 138 164 C 126 126 129 P 3 22	H 253	H _{min.} 253 282 224 242 242 242 242 242 253 253 253 253 253 253 253 253 253 25

LADDER PARAMETERS

Tread length [cm]	E	30	34
Tread width [cm]			8
Distance between treads [cm]			25
Tread thickness [cm]			2

 $^{{\}color{blue}*} \ for rooms \ lower \ than \ the \ maximum \ standard \ height \ H \ please \ adjust \ the \ length \ of \ the \ ladder \ according \ to \ the \ assembly \ instructions$





SLIDING SECTION LOFT LADDERS







The **LDK** loft ladder is a 2-section, sliding loft ladder. It is similar in style to folding section ladders, the main difference being that the bottom section simply slides up into the loft, eliminating the need for swing space.



The sliding ladder mechanism has a longer lower section which gives it stability.



white hatch



peripheral seal



non-slip treads with additional depth



handrail



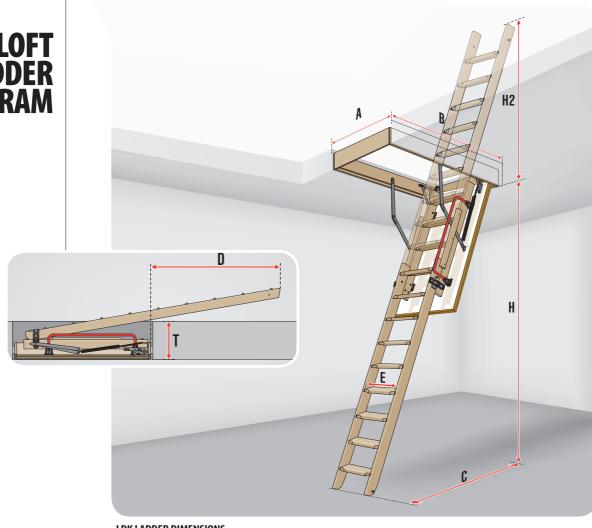
possibility of installing additional accessories pages 54-59 Technical specification:

maximum load of 160 kg hatch heat transmission coefficient U = 1.1 W/m²K insulation thickness 3 cm hatch thickness 3.6 cm





LDK LOFT LADDER DIAGRAM



LDK LADDER DIMENSIONS

AxB	60x120	70x120	70x130	70x140	60x120	70x120	70x130	70x140
		LD	S-9		LDS-10			
Н		28	80			30)5	
H _{min.}				20	00			
	58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4	58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4
	54 x 114	64x114	64 x 124	64 x 134	54x114	64x114	64 x 124	64 x 134
C		13	30		140			
H2		13	30			15	55	
D		1.	29		155			
T	3.			35				
		14			4			
	H H _{min.} C H2	H H _{min.} 58x118.4 54x114 C H2 D	H 22 H _{min.} 58x118.4 68x118.4 54x114 64x114 C 1: H2 1:	H 280 H _{min.} 58x118.4 68x118.4 68x128.4 54x114 64x114 64x124 C 130 H2 130 D 129	H 280	H 280 200	H 280 30 30 30 30 30 30 30	H 280 305 305

LADDER PARAMETERS

Tread length [cm]	E	34
Tread width [cm]		8
Distance between treads [cm]		25
Tread thickness [cm]		2

^{*} for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions

LOFT LADDER

Commercial sizes [cm]		60x120	70x120	70x130	70x140	60x120	70x120	70x130	70x140
		П	П			П	П		
		ш	ш	ш		ш	ш	ш	
Room height [cm]	Н		28	30			30)5	
Code LDK*		861001	861011	861012	861013	861001	861011	861012	861013
Code LDS*		861101	861101	861101	861101	861102	861102	861102	861102

 $[\]hbox{* The LDK complete ladder consists of the top element and sliding section LDS, packed separately.}$

NON-STANDARD LOFT LADDER SIZES

NON-STANDARD LOFT LADDER SIZES

Where installation of a standard FAKRO loft ladder is not possible, bespoke timber folding sections of the LWK KOMFORT can be made.

BO

The loft ladder box is made of wood and has a peripheral seal placed within a milled recess. Once the hatch is closed, this seal ensures full airtightness is provided and once installed the box's special design enables quick and easy fitting of either a lining or architrave.

HARDWARE

The spring catch provides added rigidity to the box, prevents distortion and ensures that the ladder will continue to be operated trouble-free. The hinges joining each section of the ladder also add strength to connections as they move

TREADS

Grooves which are cut into the tread surface protect the user from accidental slipping while using the ladder.

STILE ENDS

Stile ends (for 3-section loft ladders only) made of PVC protect the floor surface from scratching and add to overall stability.

HATCH OPENING MECHANISM

Operation of the loft ladder is significantly improved because of Fakro's unique unloading mechanism. Once unlocked, the hatch opens slowly without any potential danger to the user. Once fully opened, this mechanism will also hold the hatch in position, preventing it from slamming shut.

HATCH

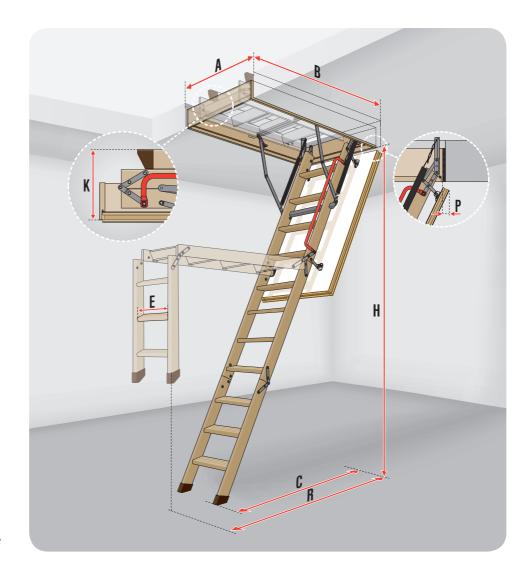
The loft ladder hatch is made of wood and can be either insulated or fire-resistant. The insulation protects against heat loss while fire-resistant material protects against heat build-up caused by spread of flame. The external hatch surface is smooth with no visible fixing points to detract from the visual style of any interior design

LADDER

FAKRO loft ladders are predominantly of three sections, though some have four. These are moved away from the hatch in order to create more space for the feet. The special ladder structure and materials used ensure the highest standard of durability.

When ordering the **LWK** Komfort loft ladder in nonstandard sizes the actual dimensions of the ceiling opening ('A' and 'B') and the room height 'H' have to be provided. The actual size of the loft ladder box is reduced (for installation reasons) by 2 cm in width and 1.6 cm in length, e.g. for the opening dimensions 54 x 94cm, those of the ladder would be 52 x 92.4cm. When ordering please take into account the swing space needed when unfolding (swing space 'R'), the distance once the ladder is unfolded (distance 'C') and hatch retraction after it is opened (distnce 'P').

LWK Komfort loft ladders are equipped with a hatch which is finished in white on both sides (three section ladders only), and, with the exception of ladders for a 54cm hatch width, a handrail. The height of the loft ladder box is 14cm though to provide a neat finish with deeper ceilings an LXN box extension can be installed (see page 56).



LOFT LADDER COMMERCIAL SIZES

Ceiling opening width [cm]	Ceiling opening length [cm]	Room height [cm]	Swing space (measured from the rear edge of the box) [cm]	Distance after ladder unfolding (measured from the rear edge of the box) [cm]	Hatch retraction after opening [cm]	Number of segments after opening
A	В	Н	R	C	Р	
	94-140	200 – 280	115-155	89-120	4	3 or 4 segments*
54 – 86	120 – 129	280 – 305	140	110-119	4	4 segments
34-00	130 – 140	280 – 305	155-175	120-135	4	3 segments
	140	305 – 335	175-184	135-146	4	3 segments

 $[\]ensuremath{^*}$ - Number of ladder's segments depends on the opening length configuration and room height.

TREAD LENGTH:

3-segment ladder

Ceiling opening width A [cm]	54≤ A <58	58≤A
Tread length E [cm]	30	34

4-segment ladder

Ceiling opening width A [cm]	54≤ A<56	56≤A<60	60≤A
Tread length E [cm]	28	30	34



HATCH UNFOLDING **MECHANISM** The ladder box can be of wood, metal or a combination of a wooden box / metal frame. The hatch opening mechanism enables it to be It has been designed to enable architrave to be fully or partly open positions to ensure folding and installed with ease if the ready-fitted option is not unfolding are done in safety. LML and LMF loft ladders chosen. Peripheral single or double seals provide also have a hidden mechanism in the handrail which a good standard of airtightness. in conjunction with that of the hatch opening enables them to be opened or closed with a single rod. The loft ladder hatch is made **HARDWARE** of wood or metal and can be The patented corner hinge design either insulated or fire-resistant. adds rigidity to the box and prevents The insulation protects against distortion. This ensures that the ladder heat loss while fire-resistant will continue to be operated material protects against heat trouble-free. build-up caused by spread of flame. The external hatch surface is smooth to blend effectively with the visual style of any interior design. **TREAD** Circular embossing of the tread surface prevents slipping while the width of treads (8 or 13cm) enables them to be used safely and with ease. **LADDER** The special design of the metal ladder and a double connection of the ladder hinges guarantee high ladder **STILE ENDS** strength. Ladder elements are powder-coated with hard wearing lacquer in grey RAL 7022 or silver RAL 9006. Some metal ladders have the final two treads left loose and with Made from plastic, these protect the floor from scratches and in telescopic stile ends this enables adjustments of the ladder addition add to the overall ladder length to be made without the need for cutting.

stability.



METAL FOLDING SECTION LOFT LADDERS







The **LMS** is a 3-section loft ladder in which the hatch and box are made of pine. The metal ladder is powder-coated in RAL 7022 while the insulated hatch is finished in beige.



The use of metal ladder with special hinge structure guarantees high durability -permissible loading 200kg.



stile ends



beige hatch



non-slip treads



peripheral seal



possibility of installing additional accessories pages 54-59

Technical specification:

 $\label{eq:permissible} permissible\ loading\ of\ 200\ kg$ $\ hatch\ heat\ transmission\ coefficient\ U=1.1\ W/m^2K$ insulation thickness 3 cm hatch thickness 3.6 cm





LMS LOFT LADDER DIAGRAM



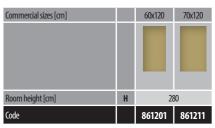
LMS LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120		
Maximum room height [cm]	Н	280			
Minimum room height [cm]*	H _{min.}	22	20		
Box external dimensions [cm]		58 x 118.4	68 x 118.4		
Internal box dimensions [cm]		54 x 114	64 x 114		
Folded ladder height [cm]	K	25.5			
Swing space [cm]	R	157			
Distance after ladder unfolding [cm]	C	118.5			
Box height [cm]		1	4		
LADDER PARAMETERS					
Tread length [cm]	E	3	4		

^{*} for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions

LOFT LADDER

Tread width [cm]





METAL FOLDING SECTION LOFT LADDERS







Unlike the LMS the **LMK** loft ladder has a white hatch and red handrail. The handrail is fixed to the ladder brackets, making its use much easier.



White insulated hatch



stile ends



handrail



white hatch



non-slip treads



peripherial seal



possibility of installing additional accessories pages 54-59 Technical specification:

permissible loading of 200 kg hatch heat transmission coefficient U = 1.1 W/m²K insulation thickness 3 cm hatch thickness 3.6 cm





LMK LOFT LADDER DIAGRAM



LMK LOFT LADDER DIMENSIONS

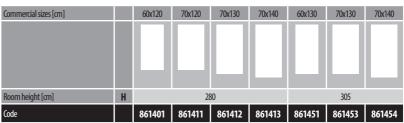
Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140	
Maximum room height [cm]	Н		28	30		305			
Minimum room height [cm]*	$\mathbf{H}_{\mathrm{min.}}$		2	20	245				
Box external dimensions [cm]		58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4	68 x 128.4	68 x 128.4	68 x 138.4	
Internal box dimensions [cm]		54x114	64 x 114	64x124	64x134	54x124	64 x 124	64x134	
Folded ladder height [cm]	K		25.5						
Swing space [cm]	R		1:	57	175				
Distance after ladder unfolding [cm]	C		11	8.5	127				
Box height [cm]									

LADDER PARAMETERS

Tread length [cm]	E	34
Tread width [cm]		8
Distance between treads [cm]		25

^{*} for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions

LOFT LADDER







METAL FOLDING SECTION LOFT LADDERS



Steel frame integrated with a wooden box, metal architrave lining and quick fit brackets.





Mechanism hidden within the rail aids folding and unfolding of the ladder.





The **LML** folding section metal loft ladder has been designed to provide the highest standard of ease and convenience while offering simple assembly and height adjustment.



Additional tread shortens distance between top tread and loft floor.



Telescopic stile ends enable quick adjustment of ladder length to suit ceiling height.



telescopic stile ends







finishing lining slats



ladder unloading mechanism built in handrail



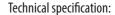
system of quick installation in the ceiling



non-slip treads, 13cm in width



possibility of installing additional accessories pages 54-59



permissible loading of 200 kg hatch heat transmission coefficient U = 1.1 W/m²K insulation thickness 3 cm hatch thickness 3.6 cm





LML LUX LOFT LADDER DIAGRAM



LML LUX LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	86x130	92x130	60x130	70x130	70x140	86x130	92x130
Maximum room height [cm]	Н	OOX120	70/120	28		OOKISO	JENISO	305				
Minimum room height [cm]*	H _{min.}			2	33			256				
Box external dimensions [cm]		59.6 x 118.6	9.6 x 118.6 68.6 x 118.6 68.6 x 128.6 68.6 x 138.6 84.6 x 128.6 90.6 x 128.6				59.6 x 128.6	68.6 x 128.6	68.6 x 138.6	84.6x128.6	90.6x128.6	
Box external dimensions with architrave linings [cm]		63.6x122.6	72.6x122.6	72.6x132.6	72.6x142.6	88.6x132.6	94.6x132.6	63.6x132.6	72.6x132.6	72.6x142.6	88.6x132.6	94.6x132.6
Internal box dimensions [cm]		55 x 114	64x114	64 x 124	64 x 134	80x124	86x124	55 x 124	64 x 124	64 x 134	80x124	86x124
Folded ladder height [cm]	K						31.5					
Swing space [cm]	R			10	67			178				
Distance after ladder unfolding [cm]	C		120							130		
Box height [cm]			31.5									
LADDER PARAMETERS												

13

LOFT LADDER

Tread length [cm]

Tread width [cm]

Code		862401	862411	862412	862413	862496	862498	862451	862453	862454	862497	862499
Room height [cm]	Н			28	30					305		
Commercial sizes [cm]		60x120	70x120	70x130	70x140	86x130	92x130	60x130	70x130	70x140	86x130	92x130
LOI I LADDLIK												

 $^{{}^{*}\}text{ for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions}\\$



METAL FOLDING SECTION LOFT LADDERS

LMP



White on both sides, 3.6 cm thick, insulated hatch equipped with a latch







Added safety, thanks to lock which prevents against unintentional folding.

The LMP new generation loft ladder, allows access to attic space, even in very high ceiling rooms (from 300 to 366cm). The unloading system used in ladder allows for convenient operation while maintaining the maximum comfort and safety of use.



ladder unloading mechanism built in handrail

non-slip treads







possibility of installing additional accessories pages 54-59



for high rooms



Short distance between the last tread and attic floor enhances the comfort of use.



Ladders intended for installation in high ceiling rooms.



Insulated and finished in white on both sides, the hatch is also equipped with an expandable seal. When this seal is exposed to high temperatures, it expands and prevents fire from breaching the hatch.

Technical specification:

permissible loading of 200 kg hatch heat transmission coefficient U = 1.1 W /m²K insulation thickness 3 cm hatch thickness 3.6 cm





LMP LOFT LADDER DIAGRAM



LMP LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x144	70x144	86x144						
Maximum room height [cm]	Н	366								
Minimum room height [cm]*	H _{min.}	300								
Box external dimensions [cm]	WxL	58x142.2	68 x 142.2	84 x 142.2						
Internal box dimensions [cm]	MxN	54x138.2	64 x 138.2	80 x 138.2						
Folded ladder height [cm]	K		32							
Swing space [cm]	R		196							
Distance after ladder unfolding [cm]	C	145								
Box height [cm]		18								

LADDER PARAMETERS

Tread length [cm]	E	34
Tread width [cm]	S	8
Distance between treads [cm]	G	24

 $[\]hbox{\it ** for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions}$

LOFT LADDER

LOI I LADDLIK				
Commercial sizes [cm]		60x144	70x144	86x144
Room height [cm]	Н		366	
Code		869334	869335	869336



METAL FOLDING SECTION LOFT LADDERS

NEW!

LMF 45 FIRE-RESISTANT



Triple system of seals guarantees perfect tightness.



The unloading mechanism buill into the handrail supports folding and unfolding the ladder (only ir loft ladders in version 358cm)

The LMF 45, a new generation of fire resistant loft ladders with metal ladder which perfectly combines a high level of fire protection with comfortable and safe access to the loft.



Short distance between the last tread and attic floor.



The hinge controls hatch movement, and as its opened, moves the hatch away from the ladder's treads. Resulting in increased space and easy operation.



The white on both sides and insulated, the hatch is equipped with expandable seal which under the influence of heat expands and prevents entering the fire to the fire free space.



stile ends

seal



ladder unloading mechanism built in handrail (in version 358cm in height).





possibility of installing additional accessories pages 54-59

non-slip treads





for high rooms

*manufacturer's internal research

Technical specification:

permissible loading of 200 kg loft ladder heat transmission coefficient U = 0.6 W/m²K* Fire resistance class El₁/El₂ = 45 minutes insulation thickness 7.4 cm hatch thickness 8 cm





LMF 45 LADDER DIAGRAM



LMF 45 LOFT LADDER DIMENSIONS

LIMF 45 LUFT LADDER DIM	ENSI	DINO											
Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	86x130	70x130	70x140	86x130	60x140	70x140	86x140	
Maximum room height [cm]	Н		280					305			358		
Minimum room height [cm]*	H _{min.}		233					234			300		
Box external dimensions [cm]		58 x 118	68 x 118	68 x 128	68x138	84x128	68x128	68 x 138	84 x 128	58x138	68 x 138	84 x 138	
Box Internal dimensions [cm]		54x114	64x114	64x124	64x134	80 x 124	64 x 124	64 x 134	80 x 124	54x134	64 x 134	80 x 134	
Folded ladder height [cm]	K		41							39			
Swing space [cm]	R			156			167			194			
Distance after ladder unfolding [cm]	C			125			135			155			
Hatch retraction after opening	Р						4						
Box height [cm]							22						
LADDER PARAMETERS													
Tread length [cm]	E							34					
Tread width [cm]	S						8						

 $^{{\}color{blue}*} \ for rooms \ lower \ than \ the \ maximum \ standard \ height \ H \ please \ adjust \ the \ length \ of \ the \ ladder \ according \ to \ the \ assembly \ instructions$

LOFT LADDER

Commercial sizes [cm]		60x120	70x120	70x130	70x140	86x130	70x130	70x140	86x130	60x140	70x140	86x140
Room height [cm]	Н		280				305			358		
Code		866401	866411	866412	866413	866496	866453	866454	866497	8664AA	8664AB	8664AC

Ladders are available only in sizes shown above.

Distance between treads [cm] G

24

FIRE-RESISTANT LOFT LADDERS

LMF FIRE-RESISTANT















The design of **LMF** loft ladder complies with stringent fire requirements, whilst providing safe and comfortable access to the loft spaces. The LMF ladder prevents fire from spreading to the upper or lower fire free storey for 120 minutes.



Mechanism hidden within the rail aids folding and unfolding of the ladder.



telescopic stile ends



ladder unloading mechanism built in handrail



fire-resistant hatch on both sides



system of quick installation in the ceiling



architrave lining



non-slip treads, 13 cm in width



seal



possibility of installing additional accessories pages 54-59



Technical specification:

permissible loading of 200 kg hatch heat transmission coefficient $U = 0.79 \text{ W/m}^2\text{K}$ fire-resistance El₃=120 minutes insulation thickness 8 cm hatch thickness 8.2 cm

> fully assembled, and ready for quick installation in the ceiling





LMF LOFT LADDER DIAGRAM



LMF LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	86x130	70x130	70x140	86x130
Maximum room height [cm]	Н			280	305				
Minimum room height [cm]*	H _{min.}			233	256				
Box external dimensions [cm]		59x118	68 x 118	68 x 128	68x138	84x128	68x128	68 x 138	84 x 128
Internal box dimensions [cm]		55 x 114	64x114	64x124	64x134	80 x 124	64 x 124	64 x 134	80 x 124
Folded ladder height [cm]	K				3	4			
Swing space [cm]	R			165				176	
Distance after ladder unfolding [cm]	C	120					130		
Box height [cm]			16						

LADDER PARAMETERS

Tread length [cm]	E	35
Tread width [cm]		13
Distance between treads [cm]		25

 $[\]hbox{* for rooms lower than the maximum standard height H please adjust the length of the ladder according to the assembly instructions}$

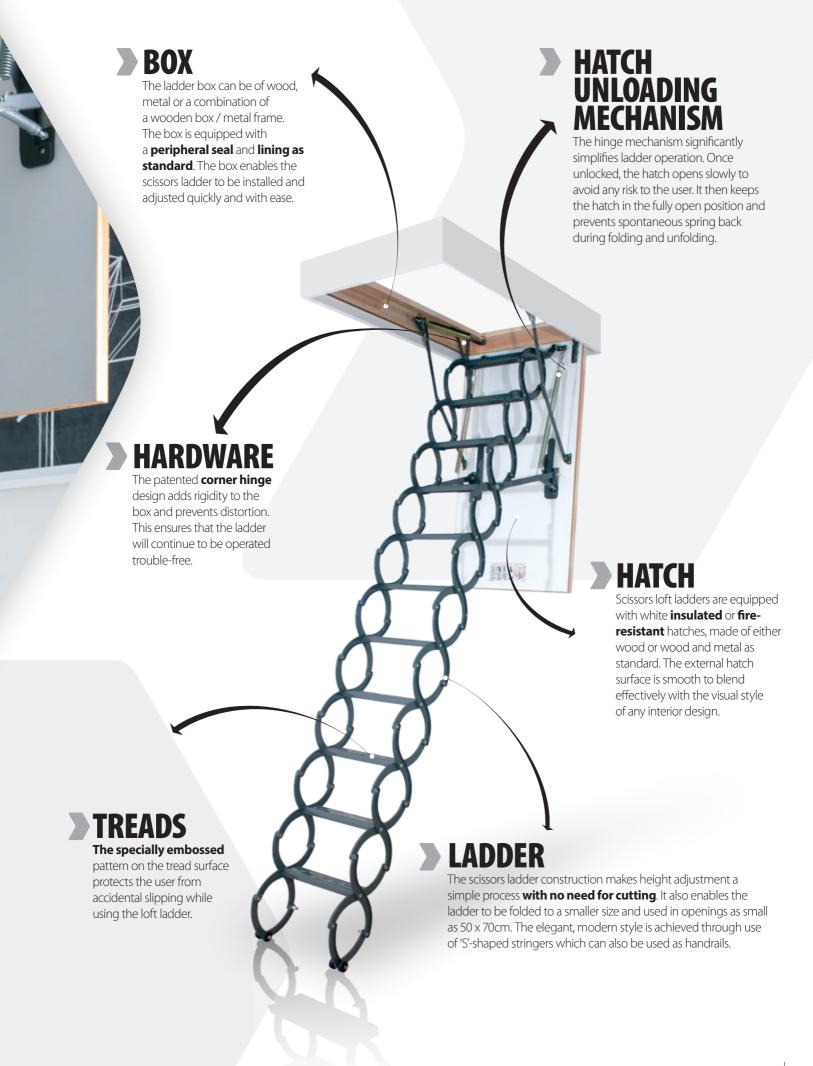
LOFT LADDER

Commercial sizes [cm]		60x120	70x120	70x130	70x140	86x130	70x130	70x140	86x130
		ш	ш	ш					
Room height [cm]	Н			280	305				
Code		862501	862511	862512	862513	862596	862553	862554	862597

Ladders are available only in sizes shown above.









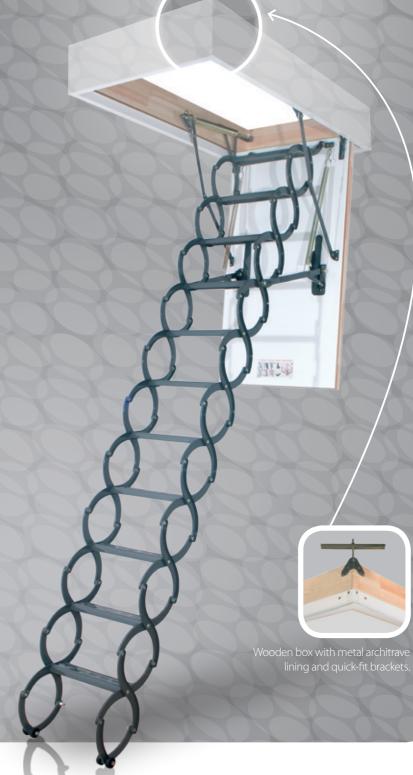
SCISSORS LOFT LADDERS

LST





The **LST** scissors loft ladder is equipped with a 3.6cm thick, white insulated hatch as standard. The box is made of wood and has quick-fit brackets while the hatch opening mechanism guarantees safe folding and unfolding. In addition, its construction has eliminated the need for a lock. The ladder itself is powder-coated in RAL 7022 Grey. The overall floor – ceiling ladder height can be increased to a maximum of 330cm by adding two LSS treads.





white hatch



possibility of adding or detaching tread



architrave lining



system of quick installation in the ceiling



peripheral seal



system of adapting the ladder length to the ceiling height



non-slip treads



possibility of installing additional accessories

Technical specification:

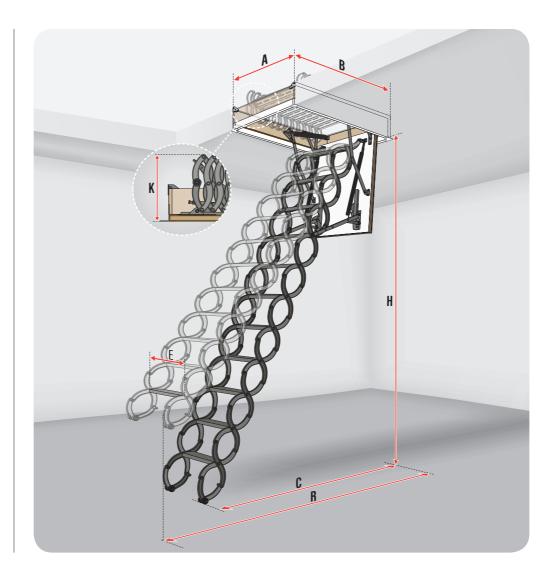
permissible loading of 200 kg hatch heat transmission coefficient U = 1.1 W /m²K insulation thickness 3 cm hatch thickness 3.6 cm

> fully assembled, and ready for quick installation in the ceiling





LST LOFT LADDER DIAGRAM



LST LOFT LADDER DIMENSIONS

		Standard ladder length							
Ceiling opening dimensions [cm]	AxB	51x80	60x90	60x120	70x80	70x120			
Room height [cm]	Н	250-280							
Box external dimensions [cm]		51x79.4 59x89.4 59x119.4 69x79.4 69x119.							
Internal box dimensions [cm]		46x74	54x84	54x114	64x74	64x114			
Folded ladder height [cm]	K			38.2					
Swing space [cm]	R			150					
Distance after ladder unfolding [cm]	C	146-134							
Box height [cm]		18							

LADDER PARAMETERS

Tread length [cm]	E	26	30	38					
Tread width [cm]		8							
Distance between treads [cm]		24-26							
Standard number of treads [units]		11							
Compatible tread LSS		LSS-26	LSS-31	LSS-38					

Ladder short (10-trea	ter by 1 tread d ladder)	Standard ladder (11- tread ladder)		Ladder long (12- trea	er by 1 tread d ladder)	Ladder longer by 2 treads (13- tread ladder)		
230	250	250	280	280	300	300	330	
	Sizes and d	imensions of with	loft ladder no those for he	ot induded in ights 250-28	ito the table a Ocm	ire identical		
14	40	150		16	60	170		
135	127	146	134	153	145	163	150	

LOFT LADDER

Commercial sizes [cm]		51x80	60x90	60x120	70x80	70x120
					ш	
				ш		ш
Room height [cm]	Н			250-280		
Code		860402	860432	860423	860426	860436

Code	860204	860205	860206
tread*	LSS-26	LSS-31	LSS-38
ladder width [cm]	51	60	70

Ladders are available only in sizes shown above.

 $[\]mbox{\ensuremath{\mbox{*}}}$ while ordering LSS tread– the ladder commercial size and type has to be provided



SCISSORS LOFT LADDERS

LSZ





The **LSZ** loft ladder is the same as the LST except for the box, the construction of which consists of an integrated metal frame within the wooden box. It also has finishing slats and quick-fit brackets. The overall floor - ceiling ladder height can be increased to a maximum of 330cm by adding two LSS treads.



white hatch



possibility of adding or detaching tread



finishing lining slats



system of quick installation in the ceiling



peripheral seal



system of adapting the ladder length to the ceiling height



non-slip treads



possibility of installing additional accessories pages 54-59



Metal frame integrated with wooden box plus lining and quick-fit brackets.

Technical specification:

permissible loading of 200 kg hatch heat transmission coefficient U = 1.1 W/m²K insulation thickness 3 cm hatch thickness 3.6 cm

> fully assembled, and ready for quick installation in the ceiling





LSZ LOFT LADDER DIAGRAM



LSZ LOFT LADDER DIMENSIONS

		Standard ladder length				
Ceiling opening dimensions [cm]	AxB	51x80	70x80	70x120		
Room height [cm]	Н	250-280				
Box external dimensions [cm]		51x79.4	69x79.4	69x119.4		
Internal box dimensions [cm]		46x74	64.8x74	64.8x114		
Folded ladder height [cm]	K	38.5				
Swing space [cm]	R	150				
Distance after ladder unfolding [cm]	C	146-134				
Box height [cm]			14			

LADDER PARAMETERS

Tread length [cm]	E	26	38			
Tread width [cm]		8				
Distance between treads [cm]		24-26				
Standard number of treads [units]			11			
Compatible tread LSS		LSS-26	LSS-38			

LOFT LADDER

Commercial sizes [cm]		51x80	70x80	70x120
		ш	ш	
Room height [cm]	Н		250-280	
Code		860502	860532	860536

Ladders are available only in sizes shown above.

	Ladder short (10-trea	ter by 1 tread d ladder)	Standard ladder (11- tread ladder)		Ladder long (12- trea	er by 1 tread d ladder)	Ladder longer by 1 tread (12- tread ladder)		
ĺ	230	250	250 280		280 300		300	330	
		Sizes and dimensions of loft laddern with those for h					re identical		
	14	40	150		160		170		
	135	127	146	134	153	145	163	150	

Code	860204	860206
tread*	LSS-26	LSS-38
ladder width[cm]	51	70

 $[\]mbox{\ensuremath{^{\ast}}}$ while ordering LSS tread– the ladder commercial size and type has to be provided

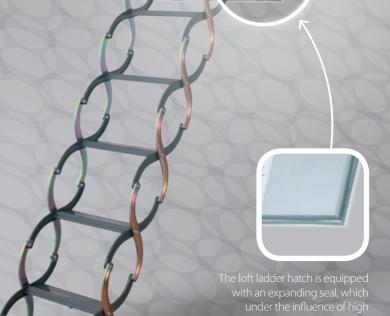
SCISSORS LOFT LADDERS







The **LSF** fire-resistant loft ladder has a 60-minute fire rating and acts as a barrier to prevent spread of flame. The overall floor -ceiling ladder height can be increased to a maximum of 320cm by adding one LSS tread.





fire-resistant hatch on one side



architrave lining





system of adapting the ladder length to the ceiling height



possibility of installing additional accessories pages 54-59

system of quick installation in the





temperature increases its volume and prevents fire from spreading to the fire free storey.

*manufacturer's internal research

Technical specification: permissible loading of 200 kg fire-resistance El₂=60 minutes insulation thickness 3 cm

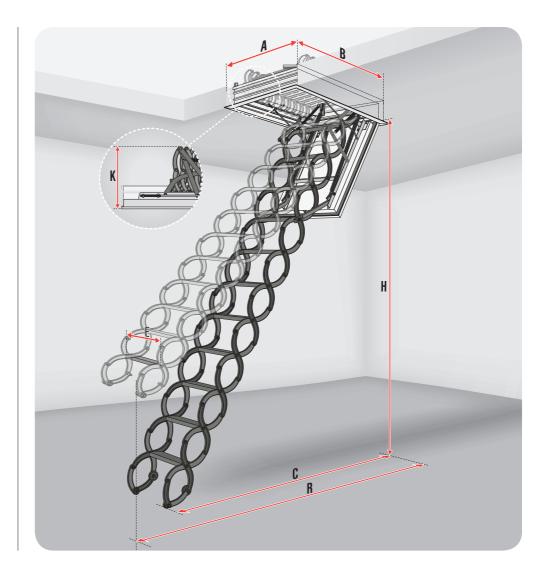
hatch thickness 5.6cm





possibility of adding or detaching tread

LSF LOFT LADDER DIAGRAM



LSF LOFT LADDER DIMENSIONS

				Stan	dard ladder le	ngth		
Ceiling opening dimensions [cm]	AxB	50x70	60x90	60x120	70x80	70x90	70x110	70x120
Room height [cm]	Н	270-300						
Box external dimensions [cm]		48x68.5	58x88.5	58x118.5	68x78.5	68x88.5	68x108.5	68x118.5
Internal box dimensions [cm]		44.8x64.8	54.8x84.8	54.8x114.8	64.8x74.8	64.8x84.8	64.8x104.8	64.8x114.8
Folded ladder height [cm]	K				46			
Swing space [cm]	R				170-180			
Distance after ladder unfolding [cm]	C				165-130			
Box height [cm]					14			
LADDER PARAMETERS								

LADDER PARAMETERS						
Tread length [cm]	E	30	32		40	
Tread width [cm]				8		
Distance between treads [cm]				25-30		
Standard number of treads [units]				10		
Compatible tread LSS		155-30	ISS-32		LSS-40	

LOFT LADDER

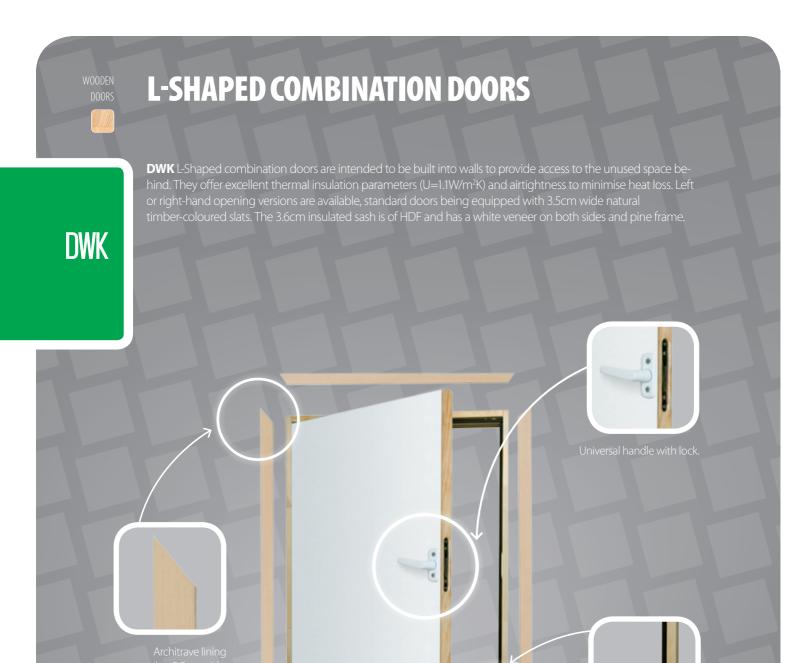
Commercial sizes [cm]	50x70	60x90	60x120	70x80	70x90	70x110	70x120
	ш			ш			
			ш				ш
Room height [cm]				270-300			
Code	860101	860123	860126	860132	860133	860135	860136

Ladders are available only in sizes shown above.

Ladder short (9-tread	ter by 1 tread I ladder)	Standard lad	itandard ladder (10- tread ladder)		er by 1 tread d ladder)
240	270	270	300	300	320
Sizes and			ot included into ights 250-280		identical
165	165	170	180	185	210
100	140	165	130	120	140

Code	860201	860202	860203
tread*	LSS-30	LSS-32	LSS-40
ladder width[cm]	50	60	70

 $^{\ ^{*}}$ when ordering LSS tread– the ladder commercial size and type has to be provided











Technical specification:

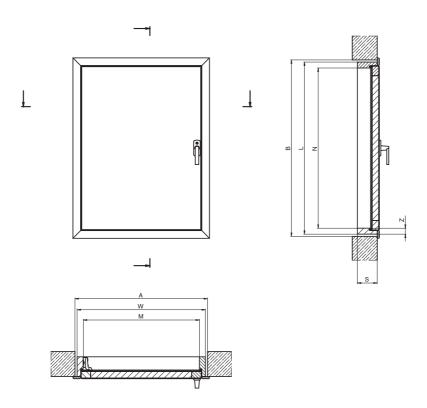
heat transmission coefficient $U = 1.1 \text{ W/m}^2\text{K}$ insulation thickness 3 cm

fully assembled, and ready for quick installation





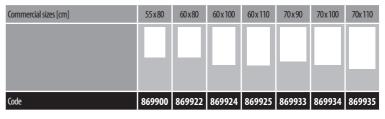
DWK DOOR DIAGRAM



DWK L-SHAPED DOORS DIMENSIONS

Opening dimensions [cm]	AxB	55x80	60x80	60x100	60x110	70x90	70x100	70x110
Door dimensions [cm]	WxL	53.4x78.4	58.4x78.4	58.4 x 98.4	58.4 x 108.4	68.4 x 88.4	68.4x98.4	68.4 x 108.4
Frame internal dimensions [cm]	MxN	48x73	53 x 73	53 x 93	53 x 103	63 x 83	63 x 93	63 x 103
Frame width [cm]	S				8.5			
Frame thickness [cm]	Z				2.7			

L-SHAPED DOORS

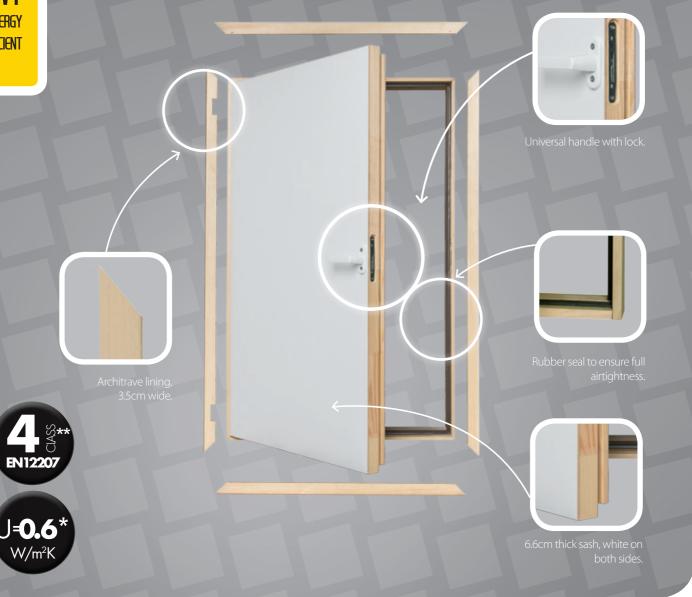


DWK doors are available only in sizes shown above.



HIGHLY ENERGY-EFFICIENT WOODEN DOORS

DWT HIGHLY ENERGY EFFICIENT The **DWT** highly energy efficient L-shaped doors are designed primarily for installation in L-shaped walls, provide access to the room behind and at the same time constitute an excellent barrier against heat loss (heat transfer coefficient $U = 0.6 \text{ W/m}^2\text{K}^*$) and guarantee high tightness. The door can be installed in the right or left side. They are as standard equipped with wooden architrave lining in natural colour.









*manufacturer's internal testing for sash ** manufacture's internal research

Technical specification:

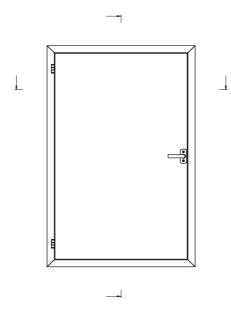
heat transmission coefficient U = 0.6 W/m²K* insulation thickness 6 cm

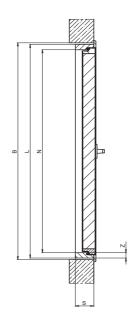
fully assembled, and ready for quick installation

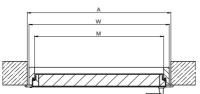




DWT DOOR DIAGRAM



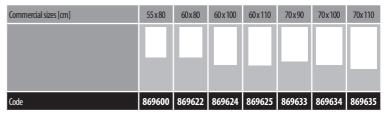




DWT L-SHAPED DOORS DIMENSIONS

Opening dimensions [cm]	AxB	55x80	60x80	60x100	60x110	70x90	70x100	70x110
Door dimensions [cm]	WxL	53.4x78.4	58.4x78.4	58.4x98.4	58.4 x 108.4	68.4 x 88.4	68.4x98.4	68.4 x 108.4
Frame internal dimensions [cm]	MxN	48 x 73	53 x 73	53 x 93	53 x 103	63 x 83	63 x 93	63 x 103
Frame width [cm]	S				9			
Frame thickness [cm]	Z				2.7			

L-SHAPED DOORS



DWT doors are available only in sizes shown above.

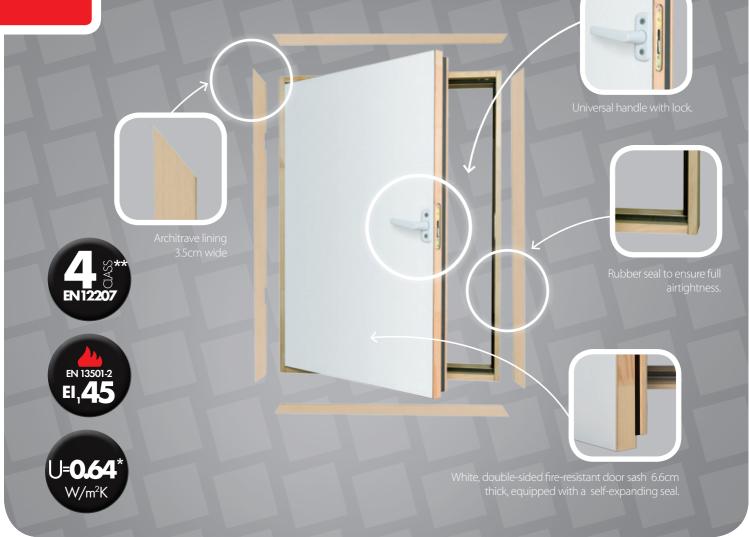


L-SHAPED COMBINATION DOORS

DWF

FIRE-RESISTANT

DWF L-Shaped combination fire-resistant doors have a 45-minute fire rating – (EN 13501-2) to protect against the spread of flame while providing access to unused space behind a wall. The white 6.6cm thick sash has thermo insulation to provide an excellent barrier against heat loss (U= 0.64W/m 2 K*). The door can be installed in the right or left side. They are as standard equipped with wooden architrave lining in natural colour.



*manufacturer's internal testing for sash ** manufacture's internal research







fire-resistant white sash on both sides

Technical specification:

fire-resistance EI₁/EI₂=45 minutes heat transmission coefficient U = 0.64 W/m²K* insulation thickness 6 cm

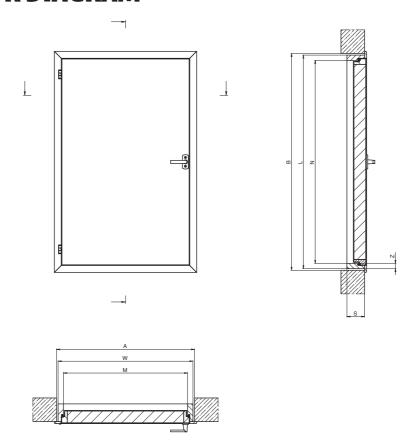


fully assembled, and ready for quick installation in the ceiling





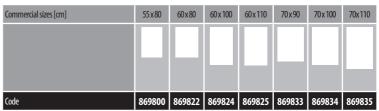
DWF DOOR DIAGRAM



DWF L-SHAPED DOORS DIMENSIONS

Opening dimensions [cm]	AxB	55x80	60x80	60x100	60x110	70x90	70x100	70x110
Door dimensions [cm]	WxL	53.4x78.4	58.4x78.4	58.4x98.4	58.4 x 108.4	68.4 x 88.4	68.4x98.4	68.4 x 108.4
Frame internal dimensions [cm]	MxN	48 x 73	53 x 73	53 x 93	53 x 103	63 x 83	63 x 93	63 x 103
Frame width [cm]	S				9			
Frame thickness [cm]	Z				2.7			

L-SHAPED DOORS



DWF doors are available only in sizes shown above.

BALUSTRADE LXB-U

The loft balustrade is made of pine wood, protects the ceiling opening in the attic and makes it easier and safer to descend the ladder. The LXB-U is installed directly to the loft floor and is strengthened with flat-bars. The LXB-U balustrade is suitable for the biggest loft ladder size 86x140 cm, so it can be applied to all types of loft ladder without cutting its horizontal bars.



LXB-U Balustrade	Available for loft ladders
LAD-U Ddiustraue	all FAKRO loft ladders
Standard dimensions [cm]	86x140
Non-standard dimesnions [cm]	for loft ladder sizes smaller than 86x140 cm, the standard size balustrade is applied
Balustrade height [cm]	110

Code	80AZ04
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INSTALLATION BRACKETS LXK

Installation brackets facilitate loft ladder installation in the ceiling. Installed in the corners of the box, they add to its overall rigidity ensuring equal lengths of diagonals. Bolts are screwed into brackets guaranteeing quick and accurate levelling of the loft ladder in the ceiling.



Installation brackets		Available for loft ladders											
	LWKKomfort	LWL Extra	LTK Energy	LWT	LWT Passive House	LWF45	LDK	LMS	LMK	LMP	LMF45		
Installation to the ceiling max. thickness [cm]	3.5	5	39		43			35	39	43			

Code 6208

ARCHITRAVE LININGS LXL

The architrave is designed to finish the installation of the loft ladder and to cover gaps in the ceiling which remain after the fitting process. The architrave elements are of solid pine wood (LXL-P) or in white (LXL-W) or PVC (LXL-PVC). This quick and simple fitting process ensures a fast, aesthetically pleasing finish of the installed Loft Ladder. In the case of PVC architrave, connection with the box does not require any nails. The LXL-PVC architrave is available in white*.

Auchitenso linings I VI D/ M					Av	ailable fo	r loft ladd	ers					
Architrave linings LXL-P/-W	LWK Komfort	LWL Extra	LTK Energy	LWT	LWT Passive House	LWF 45	LDK	LMS	LMK	LMS	LMK	LMP	LMF45
Standard dimensions [cm]		70x140,86x144											
Non-standard dimensions [cm]		For other loft ladders sizes , cut the slats from the standard architrave lining size.											
Slats thickness after installation on box [cm]							1						
Slats width [cm]						3	3.5						
Max. witdh of the gaps, the architrave slats cover after instllation on the box [cm]						2	2.5						





	LX	L-P	LXL-W				
	70x140	86x144	70x140	86x144			
Code	62087	80AZ52	62088	80AZ54			

Andrian Initian IVI DVC		Available for loft ladders											
Architrave linings LXL-PVC	LWKKomfort	LWL Extra	LTK Energy	LWT	LWT Passive House	LWF45	LDK	LMS	LMK	LMP	LMF45		
Standard dimensions [cm]		60x120, 70x120, 86x140, 86x144											
Non-standard dimensions [cm]		For other loft ladders sizes, cut the slats from the standard architrave lining size.											
Slats thickness after installation on box [cm]						1							
Slats width [cm]					3	.3							
Max. witdh of the gaps, the architrave slats cover after instllation on the box [cm]					2	.4							





		LXL-	PVC							
	60x120	60x120 70x120 86x140 86x144								
Code	62082	62083	62084	80AZ 56						

 $[\]hbox{* the architrave lining colour may slightly differ from the colour of lining in angles and hatch}\\$

INVISIBLE ARCHITRAVE LXL-I

The LXL-Invisible linings allow for discreet installation and concealment loft ladders in the ceiling. Thanks to the use of linings, the ladder box remains invisible. There is no need to install architrave linings masking the gaps, and the loft ladder hatch is hidden in the ceiling. The use of a discrete assembly system allows for an aesthetic and minimalistic interior finish. Installation of LXL-Invisible linings with loft ladders should be done before finishing the ceiling with plasterboards.

Invisible architrave I XI -I		Available for loft ladders											
IIIVISIDIE AICIIILIAVE LAL-I	LWS Plus, LWK Plus, LWL Extra, LTK Energy, LWT, LWT PH, LDK, LMS, LMK												
Standard dimensions [cm]		60x120cm, 70x120cm, 86x140cm											
Non-standard dimensions [cm]	For other loft ladde	For other loft ladders sizes, cut the slats from the standard architrave lining size.											
The thickness of the plasterboards to which the lining is adapted		12.5											
		LXL-I											
	60x120	70x120	86x140										
Code	80AZ68	80AZ69	80AZ70										





BOX EXTENSION LXN

Made of pine, the box extension matches perfectly with the box of the installed ladder and enhances the look of the ceiling opening. In addition, in case of thick ceilings, for 4-segment and scissors LST and LSZ loft ladders, the box extension serves as an extension element of a box height allowing for installation of the LXW upper hatch (see LXW, page 57).

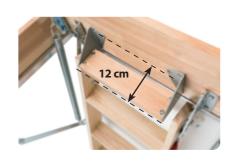


Dt			Availab	ole for loft ladders						
Box extension LXN	LWK Komfort LWZ Plus	LWL Extra LTK Energy LW	WT LWT Passive LWF 45 House	LDK LMS	LMK LM	ML LMF45	LMF LS7	LSZ		
Height of the box extension frame [cm]				10						
Max. height of non-standard box extension [cm]		20		16 20						
LXN box extension commercial 51x80 55x100 55x100	55x111 60x90	60x94 60x100 60x11	111 60 x 120 60 x 130 60 x	x140 70x80 7	70x94 70x100 1	70x111 70x120	70x130 70x	140 86x130		
Code 862300 86232	0 862321 862322	862307 862306 86230	304 862301 862302 862	2303 862332 86	52317 <mark>862316</mark> 8	862314 862311	862312 862	862396		

When ordering standard and non-standard box extensions, please specify the model and commercial size of loft ladders. The provided box extension size will be compatibile with the loft ladder box.

ADDITIONAL TREAD LXT

An additional tread makes climbing the ladder easier and increases comfort and safety when accessing the loft space. Made of wood, it is installed between the final tread and loft floor and is particularly recommended for use in situations where the upper hatch is installed on the ladder box or where ladders are installed in a thick ceiling.



Available for loft ladders												
LWK Komfort (size 55x111)	LWL Extra (sizes 60x)	LWK Komfort (except size 55x111)	LWL Extra (except sizes 60x)	LWZ Plus	LMS	LMK						
LXT2	280	LXT300										
30)	34										
	(size 55x111)		(size 55x111) (sizes 60x) (except size 55x111)	(size 55x111) (sizes 60x) (except size 55x111) (except sizes 60x)	(size 55x111) (sizes 60x) (except size 55x111) (except sizes 60x) LXT300	(sizes 55x111) (sizes 60x) (except size 55x111) (except sizes 60x) LWZ Plus LWS LXT 280 LXT 300						

	LXT 280	LXT 300
Code	62058	62059



UPPER HATCH LXW

The LXW Upper Hatch prevents attic dust from accumulating on the hatch and steps of the closed ladder. It improves the overall insulating parameters and airtightness of the ladder on which it is installed. The upper hatch consists of a frame equipped with a peripheral gasket, 3.6cm thick hatch door, hardware, installation brackets, gas piston and rotational closing handle. In order to close the upper hatch from the loft side, it is possible to install an additional LXZ handle.



Hanar hatch I VIII								I	Available fo	or loft lado	ders							
Upper hatch LXW	LWK Komfo	ort LW.	ZPlus I	.WL Extra	LTK Energy	LWT	LW	Γ Passive Hous	e LWF	45	LMS	LMK	LML	LMF4	15	LMF	LST	LSZ
Max. thickness of the ceiling where the upper hatch can be installed [cm]	31 or after standard be extension ins lation 41. Fo section ladd the use of the box extensional must.	ox stal- or 4 31 o ers ha	or after stand atch installat		35 or after standard box extension installation 45 With 4-sectiol loft ladders extension box must be applied.	5. 39 or aft n With 4-	39 or after standard box extension installation 49. With 4-section loft ladders extension box must be applied.			ection loft ladders extension box must be 31 or after standard box standard box standard box outpreion installation 41		extension installation 41.		box star	or after ndard box ttension allation 43.	41, the box installation	extension n is a must	
Upper hatch box height [cm]										20								
Commercial sizes of LXW [cm]	51x80	55x100	55 x 111	60 x 90	60x94	60 x 100	60 x 111	60 x 120	60 x 130	60 x 140	70 x 80	70x94	70 x 100	70 x 111	70 x 120	70 x 130	70 x 140	86 x 130
Code	862200	862220	862221	862222	862207	862206	862204	862201	862202	862203	862232	862217	862216	862214	862211	862212	862213	862296

When ordering standard and non-standard upper hatches, please specify the model and commercial size of loft ladders. The provided upper hatch size will be compatibile with the loft ladder box.

HANDLE LXZ

The LXZ handle enables the LXW upper hatch to be closed from the loft side e.g. during maintenance work in the loft or on the roof.





STILE ENDS LXS

The LXS Stile Ends are finishing elements mounted on the base of the ladder, adding a smart touch to its appearance. They add to the ladder's stability and are made from specially selected material to protect the floor from being scratched. They are available for all segment of loft ladders with wooden ladder sections (besides 4-section and LDK loft ladder).





UNLOADING MECHANISM LXM

The unloading mechanism assists in folding and unfolding the ladder thus increasing the comfort and safety of using loft ladders. Available for 3- segment loft ladders. **The LXM** installation possible on the right or left side of the ladder, on the opposite side to the LXH handrail.

Unleading mechanism IVM	Available for loft ladders						
Unloading mechanism LXM	LWK Komfort, LWZ Plus, LTK Energy, LWT, LWT PH, LWF45						
LXM_3	only for 3- segment loft ladders, minimum room height 260cm						
	·						
Codo	960272						



HANDRAIL LXH

The LXH Metal Handrail makes climbing the ladder easier and increases user's safety and comfort. It is mounted onto upper ladder section.



Handrail LXH	Available for loft ladders									
	LWK Komfort, LWZ Plus, LTK Energy, LWT, L	WT Passive House, LWF 45, LMS, LMK, LMF45	LDK							
Handrail is installed to the upper ladder section	LXH*50/13	LXH*75/13	LXH75/16							
Code	80AZ24	80AZ18	62065							

^{*} Handrails LXH 50/13 are installed to ladder with boxes up to 100cm in length; handrails LXH 75/13 to ladders with boxes over 100cm in length In the LMF45 loft ladders, the additional LXH handrail is compatible only with the loft ladders version heights up to 280 and 305cm

ASSEMBLY KIT LXK-D

The LXK-D assembly kit simplifies and improves the installation of LML loft ladders to the ceiling, on which the DRL hatch has already been installed. Installation in ceilings with a thickness of min. 38cm, maximum 50cm.

Code 80AZ41



INSULATION KIT LXD

The **LXD Insulation Kit** provides the standard of tight insulation between the ladder box and ceiling opening needed in energy-efficient construction. It includes: airight collar, insulation material (sheep wool blocks) and an air permeable collar.



Installation kit LXD	Available for loft ladders												
	LWK Komfort	LWL Extra	LTK Energy	LWT	LDK	LMS	LMK						
Standard dimensions [cm]	60/70x120 oraz 86 x 140												
Non-standard dimensions	For ladders smaller then 86x140 cm the standard size of the kit has to be adapted												
Commercial sizes LXD	60x120	70x1.	20	86x140									
Code	80AZ13	80AZ	14	80AZ15									

AVAILABLE ADDITIONAL ACCESSORIES

	LWK Komfort	LWZ Plus	LWL Extra	LTK Energy	LWT	LWT PH	LWF 45	LDK	LMS	LMK	LML	LMP	LMF 45	LMF	LST	LSZ	LSF
LXB-U balustrade	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
LXK installation brackets	✓	_	✓	✓	✓	✓	✓	✓	✓	✓	_	✓	✓	_	_	_	_
LXL architrave lining (wooden)	✓	_	✓	✓	✓	✓	✓	✓	✓	✓	_	✓	✓	_	_	_	_
LXL-PVC architrave lining (plastic)	✓	_	✓	✓	✓	✓	✓	✓	✓	✓	_	✓	✓	_	_	_	_
LXL-I architrave	✓	_	_	✓	✓	✓	_	_	✓	✓	_	_	_	_	_	_	_
LXH handrail	✓	✓	_	✓	✓	✓	✓	✓	✓	✓	_	_	√ **	_	_	_	_
LXN box extension	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	_	✓	✓	✓	✓	_
LXT additional tread	✓	✓	✓	_	_	_	_	_	✓	✓	_	_	_	_	_	_	_
LXW upper hatch	✓*	✓	✓	√ *	✓*	✓	√ *	_	✓	✓	✓	_	✓	✓	✓*	√ *	_
LXS stile ends (only for 3 sections ladders)	✓	✓	✓	✓	✓	✓	✓	_	_	_	_	_	_	_	_	_	_
LXM unloading mechanism (only for 3 sections ladders)	✓	✓	_	✓	✓	✓	✓	_	_	_	_	_	_	_	_	_	_
LXK-D assembly kit		_	_		_	_	_	_		_	✓						_
LXD insulation kit	✓	_	✓	✓	✓	_	✓	✓	✓	✓	_	_	_	_	_	_	_

^{*} for 4 section loft ladders and scissors the LXN box extension is mounted piror to the upper hatch LXW installation

^{**}In the LMF45 loft ladders, the additional LXH handrail is compatible only with the loft ladders version heights up to 280 and 305cm





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