







FOLDING LOFT LADDERS

enable safe and easy access to non-inhabited loft spaces without the need for installing costly and space consuming staircases. The ladders satisfy all technical and safety requirements whilst maximising ease of use and comfort.



SPACE SAVINGS

Fakro Loft Ladders require little "swing space" for operation. When folded, the sections are concealed inside the Loft Space, **maximising space** in the room below.

EASE OF INSTALLATION

The Installation system ensures that the Ladder can be easily installed by two persons. Height can be easily adjusted to suit room height. Ladders come as fully assembled products and do not require any additional pre-installation work.

EASE OF OPERATION

Appropriate design of hatch unloading mechanism, and in some models also ladder's sections unloading mechanism improve loft ladder's operation. An opening rod is supplied with every Loft Ladder enabling the user to open and close the unit with ease.

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.**



LOFT LADDERS

TYPES OF LOFT LADDERS AND THEIR SELECTION

All Fakro folding loft ladders ensure high tightness reducing heat loss of your loft and satisfy the requirements of EN 14975:2006. A popular Ladder within the range would be the LWK Komfort model, which comes folding section loft ladders in the ceiling, choose the **LWZ Plus** ladders. To reduce to a minimum the time required to mount the wooden folding section loft ladders in the ceiling, the customer may choose the ladders Another product in



	11/1	IMV vo	NACODT	11117	BLUC	l IV	A/I	ITV a		NSULATED I V	WT.	FIRE RES	
		LWK KL	<u>JMFUKI</u>	LWZ	<u> </u>	LV	<u>YL</u>	LTK e	<u>NtKbY</u>	LV	VT	LWF	45
					ш		ш		ш				
Thickness of the	rmal insulation	3	}	:	3	:	3	6		7	,4	7,	4
Heat transmitta U [W/m²K]	nce coefficient	1.	1	1	.1	1	.1	0.6	8	0.	51	0.6	iO ¹
Fire resistance d EN13501-2	ass according to	_	-	-	_	-	_	_	-	-	_	El ₁ ·	45
Box height [cm]		14	4	1	4	1	4	18	3	2	22	2	2
System of quick the ceiling	installation in	_	-	-	+	-		_	-	-	_	_	_
Ladder section			den	wodden		wodden		wodden		WOO	dden	wod	den
Width of the trea		8	3	8	3	8	8	8		1	8	8	3
	maximum (standard)	280	305	280	305	280	305	280	305	280	305	280	305
ceiling height [cm]	minimum ²	232/250³	246	232	246	260	260	235/253³	243	234	255	234	242
	with attached LSS ⁴	-	-	<u>-</u>		-		-		-	_	-	-
max. loading		160	kg	160) kg	160 kg		160 kg		160	0 kg	160	kg
				Tools In the second sec									
			e 12	pag	e 14	pag	e 16	page 18		pag	e 20	page	24

for 4-section loft ladders
 LSS tread suitable for a given type and width of ladders

group of ladders with increased user's comfort are LWL ladders equipped with an extra handrail situated on the middle segment and assisting folding and unfolding mechanism. In the group of ladders for special applications there are highly energy-efficient **LTK Energy** ladders aimed at customers who expect the lowest possible heat transfer coefficient. Especially for energy efficient buildings there have been created highly-insulated **LWT** ladders equipped with three gaskets **LDK** ladders, furnished similar to **LWT** Ladders. If our ladders are to provide a blaze-block and to prevent the fire spreading there is a choice of three fire proof models: **LWF 45** wooden section ladder, the **LMF** with metal section ladders or ladder **LSF** scissors ladders. In frequently used spaces there are suitable **LMS** ladders, equipped with strengthened metal section. These ladders are also available **LMK** version which is as standard equipped with a handrail and a hatch in white. Additionally, if there is a demand for simplest possible version with quick installation and high comfort of use we offer **LML** ladders and all models of scissor ladders. The **LST, LSZ** ladders have a small size box and are designed for places where there

SLIDING SECTION		FOLDING METAL SI	ECTION INSULATED		SCISSORS						
INSULATED	10000000	INSULATED		FIRE-RESISTANT	INSU	LATED	FIRE-RESISTANT				
LDK	LMS	LMK	LML	LMF	LST	LSZ	LSF				
О		О									
3	3	3	3	8	3	3	3				
1.1	1.1	1.1	1.1	0.791	1.1	1.1	1.81				
_	_	_	_	El ₂ 120	_	_	El ₂ 60				
14	14	14	31,5	16	18	14	14				
	_	_	+	+	+	+	+				
wodden	metal	metal	metal	metal	metal	metal	metal				
8	8	8	13	13	8	8	8				
280 300 335	280 305	280 305	280 305	280 305	280	280	300				
200	220 245	220 245	233 256	233 256	230	230	240				
-	-	-	-	-	290-330	290-330	310-320				
160 kg	200 kg	200 kg	200 kg	200 kg	200 kg	200 kg	200 kg				
page 26	page 32	page 34	page 36	page 38	page 42	page 44	page 46				

L-SHAPED COMBINATION **DOORS**

TYPES OF L-SHAPED DOORS AND SELECTION

of its customers FAKRO introduced 3 models of doors. The first and basic model are the **DWK** insulating doors with 3.6cm thick sash. If we want to reduce significantly heat loss and to acquire high tightness the **DWT** highly energy efficient doors is a good choice. For special applications were prepared fireproof doors **DWF**, which in addition to a good thermal insulation parameters provide two-sided fire protection (fire classification El₁45 according to EN₁501-2) and high tightness.

Insulated	Highly energy efficient	Fire-resistant
DWK	DWT	DWF
U= 1.1 W/m²K	U= 0.6 W/m²K EN12207	U= 0.64 W/m²K EN12207 EI,45
page 48	page 50	page 52

MILLER STAIRCASES

TYPES OF STAIRCASES AND THEIR SELECTION

The MSP leaning staircase is ideal for mezzanines and rooms with very limited space, where it is necessary to fold away the ladder when the staircase is not in use. The MSA alternating tread staircase thanks to its design occupies very little space inside the room while maintaining optimal comfort of use. Both MSP and MSA staircases can be successfully utilised even in small ceiling openings normally adapted to loft ladders. In case of more spacious rooms requiring a miller staircase, it is possible to select one of the models of solid straight staircases: **MSU** or its larger counterpart MSS. Additionally, in rooms where the inconvenient positioning of the walls excludes the use of straight staircases, it is possible to use **MSW-L** left-handed or **MSW-R** right-handed winder treads in conjunction with the MSS staircase.











WOODEN FOLDING SECTION LOFT LADDERS



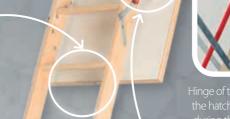




The **LWK Komfort** ladder's innovative solutions ensure a high comfort of use, great insulating properties, and quick and easy installation in the ceiling. The LWK Komfort loft ladder is equipped with aesthetically finished insulated white hatch in white, and handrail and stile ends as standard.



Insulated white hatch and handrai



the hatch movement, and during the hatch opening moves it away from the ladder's section, thus automatically increasing he pace from the ladder's section for higher comfort of use.



Low weight and innovative way of hooking the hatch on the so-callec "click" allows for installation of the loft ladde by one person



stile ends (only in 3-section version)



handrail



white hatch



non-slip treads set flush with ladder strings



peripheral seal



easy installation



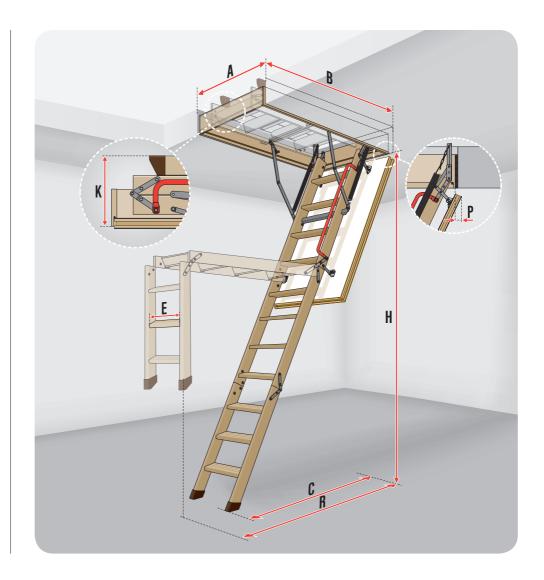
possibility of installing additional accessories, pages 66-71 Technical specification:

permissible load of 160 kg heat transmission coefficient U = 1.1 W/m²K 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
Room height [cm]	Н		280									305					
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	68 x 92.4	68x98.4	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	64x134	54 x 124	54 x 134	64 x 124	64x134
Folded ladder height [cm]	K	27	3	5		27		3	5				2	7			
Swing space [cm]	R	153	1.	28	153	1:	56	12	18	153		156			10	75	
Distance after ladder unfolding [cm]	C	113	1	14	113	1.	20	1	4	113		120			1.	35	
Hatch retraction after opening [cm]	P									4							
Box height [cm]									1	4							
Number of segments		3	4	4		3		4	1					3			

LADDER PARAMETERS

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

LOFT LADDER DIMENSIONS

Commercial sizes [cm]		55x111	60x94	60x100	60x111	60x120	60x130	70x94	70x100	70x111	70x120	70x130	70x140	60x130	60x140	70x130	70x140
Room height [cm]	Н						28	30							30)5	
Code		863821			863804	863801	863802			863814	863811	863812	863813	863851	863852	863853	863854
Code			863807	863806				863817	863816								

order processing time 3 working days order processing time 10 working days

The LWK Komfort non-standard sizes page 28





stile ends



white hatch





peripheral seal



handrail



not-slip treads set flush with ladder strings



system of quick installation in the ceiling



possibility of installing additional accessories--page 66-71 **Technical specification:**

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





LWZ PLUS LADDER DIAGRAM



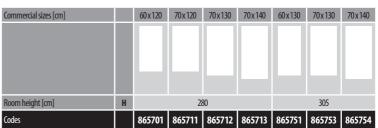
LWZ Plus LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140		
Room height [cm]	Н		280 305							
Box external dimensions [cm]		58.8 x 118.8	68.8 x 118.8	68.8 x 128.8	58.8 x 128.8	68.8 x 128.8	68.8 x 138.8			
Internal box dimensions [cm]		54 x 114	64x114	64 x 124	64 x 134	54 x 124	64 x 124	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]		7

LOFT LADDER DIMENSIONS



order processing time 10 working days



WOODEN SECTION LOFT LADDERS



LUX







Additional handrail enhances safety and comfort of use.

LWL Lux loft ladder is equipped with additional handrail on the middle segment and special gas spring mechanism supporting folding and unfolding the ladder. Special construction of the hatch unloading mechanism enables to eliminate the lock.



The applied gas spring makes the ladder folding and unfolding easier.



stile ends



white hatch



peripheral seal



handrail



not-slip treads protruding from strings strings



unloading mechanism



possibility of installing additional accessories--page 66-71 Technical specification:

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





LWL LUX LADDER DIAGRAM



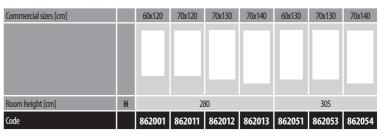
LWL Lux LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140			
Room height [cm]	Н		280 305								
Box external dimensions [cm]		58 x 118	68 x 118	68 x 128	68 x 138	58 x 128	68 x 128	68 x 138			
Internal box dimensions [cm]		54 x 114	64x114	64 x 124	64 x 134	54 x 124	64 x 124	64 x 134			
Folded ladder height [cm]	K				34						
Swing space [cm]	R		10	64			179				
Distance after ladder unfolding [cm]	C	122 130									
Box height [cm]		14									

LADDER PARAMETERS

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

LOFT LADDER DIMENSIONS



order processing time 15 working days



WOODEN SECTION LOFT LADDERS

NEW!



















The highly energy efficient, 6.6cm thick hatch secures against heat losses, bringing significant savings in energy bills.



style ends



handrail



The **LTK Energy** is highly energy efficient new generation loft ladder intended for energy-efficient buildings. They guarantee a high level of

comfort, excellent thermal insulation parameters and the highest Class 4 tightness.

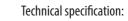
not-slip treads set flush with ladder strings

easy installation





possibility o installing additional accessories--page 66-71



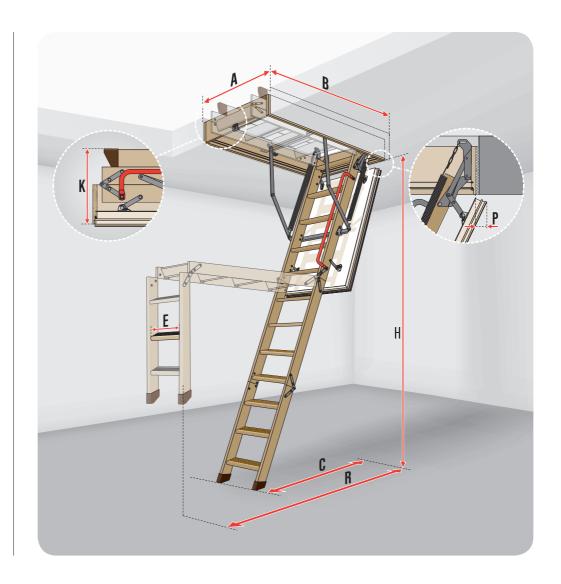
maximum load of 160 kg heat transmission coefficient $U = 0.68 \text{ W/m}^2\text{K}$ insulation thickness 6 cm hatch thickness 6.6 cm







LTK ENERGY LADDER DIAGRAM



LTK ENERGY LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	55x100	60x100	70x100	60x120	70x120	70x130	70x140	60x130	70x130	70x140	
Room height [cm]	Н				280				305			
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	64x124	64 x 134	54 x 124	64x124	64 x 134	
Folded ladder height [cm]	K		42					35				
Swing space [cm]	R		136			10	54			178		
Distance after ladder unfolding [cm]	C		123			1.	29			139		
Hatch retraction after opening [cm]	Р						3					
Box height [cm]						1	8					
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

LOFT LADDER

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

order processing time 15 working days



WOODEN SECTION LOFT LADDERS











Triple system of seals guarantees the perfect tightness.



23/2

Low weight and innovative way of hooking the hatch on the so-called "click" allows for installation of the loft ladder by one person



Short distance petween the last tread and attic floor



Special hatch, 8 cm thick, filled only with insulating material (polystyrene), provides are excellent barrier reducing heat loss



stile ends

significantly reduces energy bills.



white hatch





handrail



The **LWT**, highly energy efficient loft ladder is recommended for energy efficient buildings with spacial emphasis on minimizing a heat loss. Thanks to its excellent insulating parameters it

not-slip treads set flush with ladder strings



easy installation



possibility of installing additional accessories

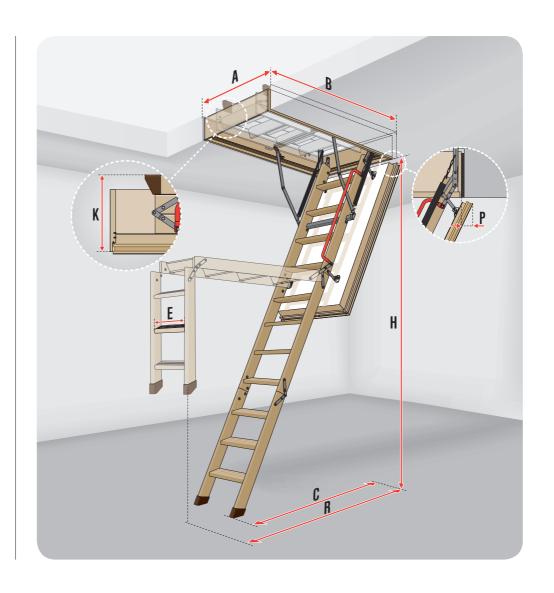
Technical specification:

permissible load of 160 kg 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	60x120	70x120	70x130	70x140	60x130	70x130	70x140		
Room height [cm]	Н		28	30		305				
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				33					
Swing space [cm]	R		16	50		175				
Distance after ladder unfolding [cm]	C		10	27		135				
Hatch retraction after opening [cm]	P				6,5					
Box height [cm]										
LADDER PARAMETERS										
Tread length [cm]	E		34							
Tread width [cm]					R					

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

LOFT LADDER

Commercial sizes [cm]		60x120	70x120	70x130	70x140	60x130	70x130	70x140
Room height [cm]	Н		28	30			305	
Code		863101	863111	863112	863113	863151	863153	863154

order processing time 15 working days



LOFT LADDERS WITH WOODEN FOLDING SECTION













The LWT Passive House loft ladder is a complex solution for the passive construction buildings. Using highly energy efficient loft ladder with a kit connecting the loft ladder to the ceiling guarantee a perfect seal and insulation without thermal bridges. This solution is confirmed by a Passive House Certificate.





stile ends

white hatch





three seals







PASSIVE HOUSE Insulation kit



non-slip treads set flush with ladder strings



easy installation



possibility of installing additional accessories--page 66-71

Technical specification:

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

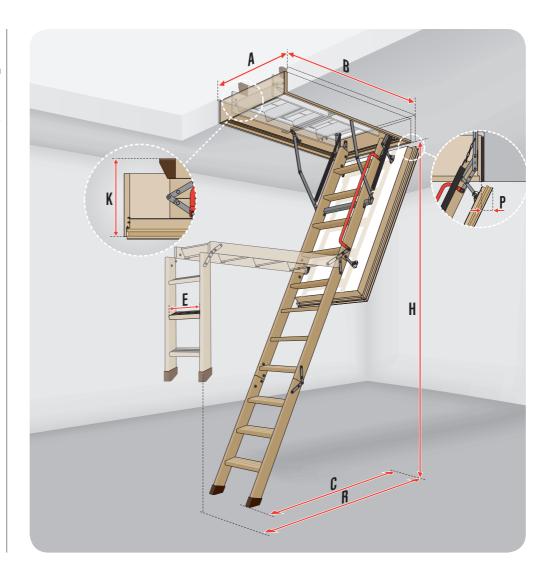
fully assembled, and ready for quick installation in the ceiling

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LWT LOFT LADDER DIAGRAM

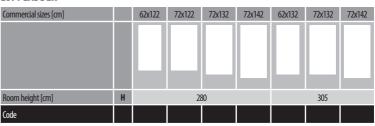


LWT PASSIVE HOUSE LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	62x122	72x122	72x132	72x142	62x132	72x132	72x142	
Room height [cm]	Н		2	30		305			
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		33						
Swing space [cm]	R		10	50			175		
Distance after ladder unfolding [cm]	C		1.	27			135		
Hatch retraction after opening [cm]	P				6,5				
Box height [cm]			22						
LADDER PARAMETERS									

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

LOFT LADDER







LOFT LADDERS WITH WOODEN FOLDING SECTION









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 the materials used provide a **45-minute** protection against fire penetration from the space where the loft ladder was installed. **(El, 45/E, 45)**.



Triple system of seals guarantees the perfect tightness.



Short distance between the last tread and attic floor



Hinge of the natch controls the hatch movement, and during the opening noves the hatch away from the ladder's treads, thus uitomatically increasing the space indispensable for the ladder use.



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.

* manufacturer's internal calculations



stile ends

fire resistant

hatch



handrail



non-slip treads set flush with ladder strings



possibility of installing additional accessories--page 66-71 Technical specification:

maximum load of 160 kg heat transmission coefficient U = 0.6 W/m²K Fire resistance class EL/EL₂=45min insulation thickness 7.4 cm hatch thickness 8 cm





LWF 45 LOFT LADDER DIAGRAM



LWF 45 LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	86x130	70x130	70x140	86x130
Room height [cm]	Н			280	305				
Box external dimensions [cm]		58 x 118	68 x 118	68 x 128	68x138	84x128	68x128	68 x 138	84 x 128
Internal box dimensions [cm]		54x114	64x114	64 x 124	64x134	80 x 124	64x124	64x134	80 x 124
Folded ladder height [cm]	K				3	7			
Swing space [cm]	R			164				178	
Distance after ladder unfolding [cm]	C			129	139				
Hatch retraction after opening [cm]	P				4	1			
Box height [cm]					2	2			
LADDER PARAMETERS									
Tread length [cm]	E				3	4			
Tread width [cm]			8						
Distance between treads [cm]			25						
Tread thickness [cm]					;	2			

LOFT LADDER

Commercial sizes [cm]		60x120	70x120	70x130	70x140	86x130*	70x130	70x140	86x130*
Room height [cm]	Н			280				305	
Code		864601	864611	864612	864613	864696	864653	864654	864697
couc		00 1001	00 1011	00 1012	00 1015	001020	00 1033	00 105 1	001077

order processing time 15 working days



SLIDING SECTION LOFT LADDERS

LDK



U=**1.1** W/m²K

The **LDK** Loft Ladder is a double-section loft ladder with a slidable lower section. Its structure resembles that of folding loft ladders. The primary difference in the operation of the LDK is that the longer bottom section simply slides up into the loft space, eliminating the swing space required on the landing for unfolding the ladder.

The structure of the double-section loft ladder makes it possible to set the ladder deeper in the ceiling.



The developed mechanism enables sections to be slid in relation to each other. The longer section slides down creating a stable structure. When folding the ladder, the longer section slides up and hides in the attic.



white hatch



peripheral seal



not-slip treads protruding from strings



handrail



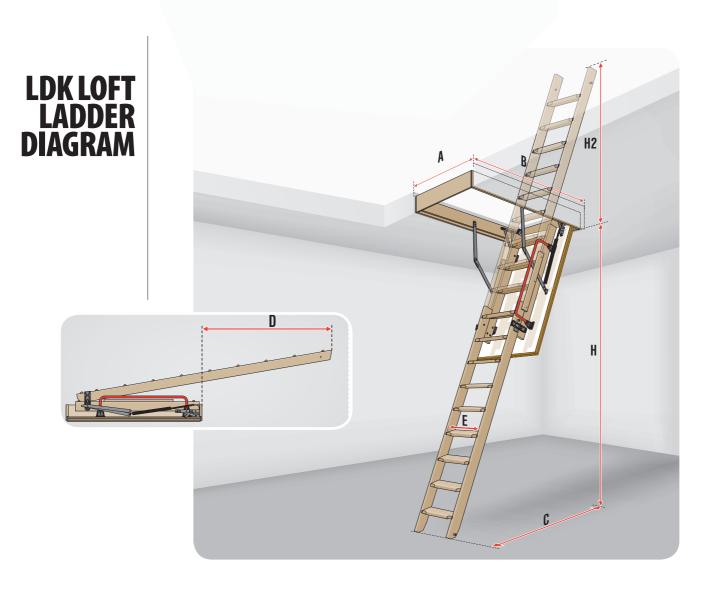
possibility of installing additional accessories-page 66-71

Technical specification:

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







LDK LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x120	70x120	70x130	70x140	60x120	70x120	70x130	70x140	
Sliding section LDS			LDS-9				LDS-10				LDS-11			
Room height [cm]	Н		280			300				335				
Box external dimensions [cm]		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	58 x 118.4	68 x 118.4	68 x 128.4	68 x 138.4	
Internal dimensions of the box [cm]		54x114	64x114	64x124	64x134	54 x 114	64x114	64 x 124	64x134	54 x 114	64x114	64 x 124	64 x 134	
Distance of drop [cm]	C		13	30		140				150				
Max height of the loft required [cm]	H2		13	30		155					18	34		
Max length of the loft required with hatch door closed	D		12	29		155				185				
Max thickness of the ceiling [cm]						31,5								
Box height [cm]						14								

LADDER PARAMETERS

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

LOFT LADDER

Commercial sizes [cm]		60x120	70x120	70x130	70x140	60x120	70x120	70x130	70x140	60x120	70x120	70x130	70x140
		ш	ш			ш	ш			ш	ш		
Room height [cm]	Н		28	30			30	00			3:	35	
Code		861001	861011	861012	861013	861001	861011	861012	861013	861001	861011	861012	861013
Code		861101	861101	861101	861101	861102	861102	861102	861102	861103	861103	861103	861103

order processing time 10 working days

 $[\]hbox{\rm *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

In situations where the installation of FAKRO standard loft ladders is not possible, there is a possiblity for bespoke wooden folding section loft ladders LWK Komfort in non-standard sizes.

BO

The Loft Ladder box is made of wood. Within the milled section is situated a peripheral seal. Once the hatch is closed, this seal ensures proper tightness of the entire box structure. The special box design enables quick and easy fitting of finishing lining or architrave.

HARDWARE

The spring catch re-enforces the rigidity of the box and prevents any changes in the diagonal lengths. Thanks to this, the box is not affected by any deformations and can be operated trouble free once installed. The hinges joining each of the sections provide rigidity to moving connections.

TREADS

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

STILE ENDS

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

HATCH UNLOADING 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 insulated or fireproof. The applied thermal -insulation protects against heat losses and, in fireproof loft ladders, also against significant heat build-up during fire. The external hatch surface is smooth without any visible fixing elements, thanks to which our loft ladders go well with any interior design.

LADDER

FAKRO Loft Ladders are usually composed of three, sometimes four sections. These sections are moved away from the hatch door in order to create additional space for footing. The special ladder structure and materials used ensure it's high durability.

When ordering the **LWK Komfort** loft ladder in non-standard 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 54x94 cm, the loft ladders would be 52x92.4 cm. When ordering the loft ladder one should also take into account the swing space the loft ladder occupies while unfolding (swing space "R"), distance after ladder unfolding (distance "C") and distance "P" -hatch retraction after opening.

The LWK Komfort loft ladders are equipped as standard in white on both sides hatch, stile ends (only in three segment loft ladders) and handrail (with an exception of loft ladder installed in ceiling openings widths of 54 cm). The height of loft ladder box is 14 cm, and in case of a thicker ceiling for aesthetics of the ceiling opening there is a possibility to install a box extension LXN. See page 68.



LOFT LADDER COMMERCIAL SIZES

Ceiling opening width [cm]	Ceiling opening length [cm]	Room height [cm]	Swing space (measu- red 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
А	В	Н	R	C	Р	
	94 – 140	200-280	125-156	89-120	4	3 or 4
54-86	130 – 140	280 – 305	155-175	120-135	4	3
	140	305 – 335	175-184	135-146	4	3

TREAD E LENGTH:

3-segment ladder

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

4-segment ladder

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

order processing time 10 working days



BOX

The ladder box can be made of wood, metal or metal frame connected with a wooden box. Special design of the box allows for easy installation of an architrave or as standard is already equipped with architrave which in connection with a quick installation system reduce time needed for installation of the ladder in the ceiling. The peripheral seals (one or two) provide adequate tightness of the loft ladder.

HATCH UNLOADING MECHANISM

Used in the loft ladder the hatch unloading mechanism holds the hatch in position both during full opening and in the intermediate positions. This allows safe folding and unfolding the ladder's sections. Additionally in the LML and LMF loft ladders' handrail, there is a hidden ladder relief mechanism, which in combination with the hatch unloadning mechanism allows full operation of the loft ladder with a use of a single rod.

HARDWARE

The patented corner hinge stiffens the box and prevents any changes in its diagonal lengths. Thanks to this, the box is not affected by any deformations and can be operated trouble free once installed.

HATCH

The hatch is made of wood or metal and can be insulated or fire-resistant. The insulation protects against heat loss, and in case of the fire-resistant ladder it also protects against significant increase of temperature during a fire. External surface of the hatch is smooth, thus after installation in the ceiling perfectly blends with any interior design.

TREAD

The round embossed pattern on the metal tread surface protects the user from accidental slipping while using the loft ladder. In addition, the width of the single tread (8 or 13 cm) allows for secure and comfortable usage of the ladder.

LADDER

The special design of the metal ladder and a double connection of the ladder hinges guarantee high ladder strength. Ladder elements are powder-coated with hard wearing lacquer in grey RAL 7022 or silver RAL 9006. Some of the metal ladders have loosened the last two treads and telescopic stile ends. This allows easy adjustment of ladder's length to the ceiling height without cutting.

STILE ENDS

Made from plastic, these protect the floor from scratches and in addition add to the overall ladder stability.



METAL FOLDING SECTION LOFT LADDERS







The **LMS** loft ladder is a 3-section ladder, in which the hatch and the box are made of pine wood.
The metal ladder is powder-coated in RAL 7022.
The hatch is insulated and 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--page 66-71 Technical specification:

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





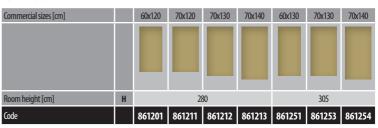
LMS LOFT LADDER DIAGRAM



LMS LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140
Room height [cm]	Н		28	30	305			
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]		54 x 114	64x114	64 x 124	64 x 134	54 x 124	64 x 124	64 x 134
Folded ladder height [cm]	K		25,5					
Swing space [cm]	R	157 175						
Distance after ladder unfolding [cm]	C	118,5 127						
Box height [cm]		14						
LADDER PARAMETERS								
Tread length [cm]	E	34						
Tread width [cm]		8						
Distance between treads [cm]					25			

LOFT LADDER



order processing time 15 working days

order processing time 10 working days



METAL FOLDING SECTION LOFT LADDERS







The **LWK** loft ladder unlike the LMS has a white hatch and red handrail.

The handrail is installed to the ladder brackets and makes the ladder usage much easer.





stile ends



handrail



white hatch



non-slip treads



peripherial seal



possibility of installing additional accessories--page 66-71 Technical specification:

permissible loading of 200 kg 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

Link Lot I LADDER DIMENSIONS										
Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140		
Room height [cm]	Н		280					305		
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]		54 x 114	64x114	64 x 124	64 x 134	54 x 124	64 x 124	64 x 134		
Folded ladder height [cm]	K	25,5								
Swing space [cm]	R	157 175								
Distance after ladder unfolding [cm]	C	118.5 127								
Box height [cm]		14								
LADDER PARAMETERS	LADDER PARAMETERS									
Tread length [cm]	E	34								
Tread width [cm]		8								
Distance between treads [cm]		25								

LOFT LADDER

Commercial sizes [cm]		60x120	70x120	70x130	70x140	60x130	70x130	70x140
		ш	ш					
Room height [cm]	Н	280 305						
Code		861401	861411	861412	861413	861451	861453	861454

order processing time 10 working days



METAL FOLDING SECTION LOFT LADDERS



LUX





Mechanism hidden in the railing assists folding and unfolding the ladder.





The **LML** section loft ladder with metal ladder is designed to provide the highest comfort of usage while simplifying the assembly process and adjusting the length to the room height.



Additional tread shortens the distance between the last tread and attic floor.



Telescopic stile ends allow quick adjusting the ladder length to the room height without trimming.



telescopic stile ends









peripheral seal



ladder unloading mechanism built in handrail



system of quick installation in the ceiling



non-slip treads, 13cm in width



possibility of installing additional accessories-page 66-71

Technical specification:

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





LML LUX LOFT LADDER DIAGRAM



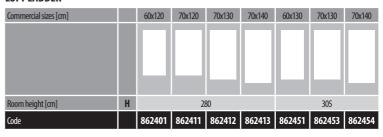
LML LUX LOFT LADDER DIMENSIONS

Ceiling opening dimensions [cm]	AxB	60x120	70x120	70x130	70x140	60x130	70x130	70x140
Room height [cm]	Н		280 305					
Box external dimensions [cm]		59.6 x 118.6	68.6 x 118.6	68.6 x 128.6	68.6 x 138.6	59.6 x 128.6	68.6 x 128.6	68.6 x 138.6
Internal box dimensions [cm]		55 x 114	64x114	64x124	64 x 134	55 x 124	64x124	64x134
Folded ladder height [cm]	K				31,5			
Swing space [cm]	R		10	65			176	
Distance after ladder unfolding [cm]	C	120 130						
Box height [cm]					31,5			
I ADDER PARAMETERS								

LADDER PARAMETERS

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

LOFT LADDER



order processing time 15 working days Ladders are available only in sizes shown above.

SCHODY SEGMENTOWE SKŁADANE Z METALOWĄ DRABINKĄ

















The special hatch design and materials used in its production protect for 120 min



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 smoke and fire from spreading to the upper or lower fire free storey for 120 minutes.



Mechanism hidden in the railing assists folding and unfolding the ladder.



telescopic stile ends



ladder unloading mechanism built in handrail



fire-resistant hatch



system of quick installation in the ceiling



architrave lining



non-slip treads, 13 cm in width



seal



possibility of installing additional accessories-page 66-71









LMF LOFT LADDER DIAGRAM

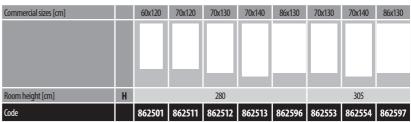


LMF LOFT LADDER DIMENSIONS

AxB	60x120	70x120	70x130	70x140	86x130	70x130	70x140	86x130
Н			280			305		
	59x118	68 x 118	68 x 128	68x138	84x128	68x128	68 x 138	84 x 128
	55 x 114	64x114	64x124	64x134	80 x 124	64 x 124	64 x 134	80 x 124
K		34						
R			165				176	
C			120				130	
	16							
	K R	H 59x118 55x114 K R	H 59x118 68x118 55x114 64x114 K R	H 280 59x118 68x118 68x128 55x114 64x114 64x124 K 165	H 280	H 280 59x118 68x118 68x128 68x138 84x128 55x114 64x114 64x124 64x134 80x124 K 34 R 165 C 120	H 280	H 280 305

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

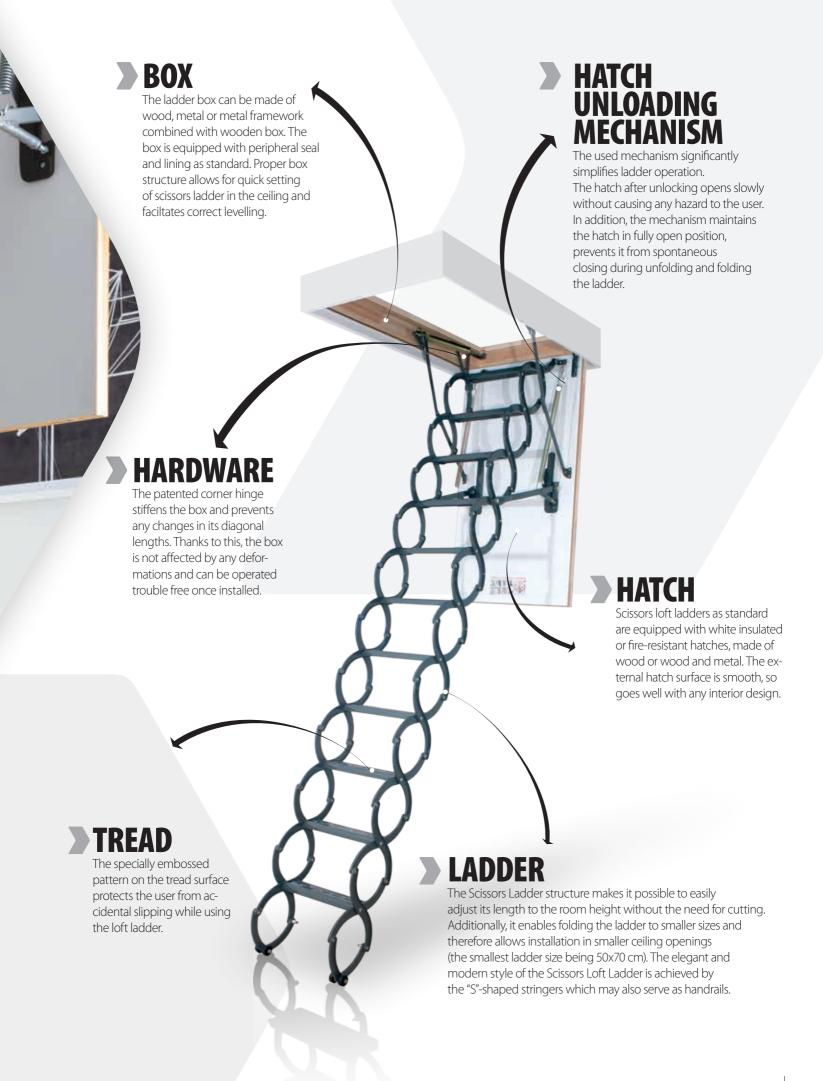
LOFT LADDER



order processing time 15 working days

Ladders are available only in sizes shown above.







SCISSORS LOFT LADDERS

LST





The **LST** Loft Ladder is a Scissors Loft Ladder equipped with a 3.6cm thick white insulated hatch as standard. The box structure is made of wood and features quick-installation brackets as standard. The hatch unloading mechanism guarantees safe ladder folding and unfolding. Additionally, its structure eliminates the need for a lock. The ladder itself is powdercoated in grey RAL 7022. Overall floor-ceiling ladder height can be increased to a maximum 330cm by adding two LSS segments.



Wooden box with metal architrave lining and quick-installation brackets



white hatch



possibility of adding or detaching segment



Architrave lining



system of quick installation in the ceiling



perpheral seal



system of adapting the ladder length to the ceiling height



non-slip treads



possibility of installing additional accessories

Technical specification:

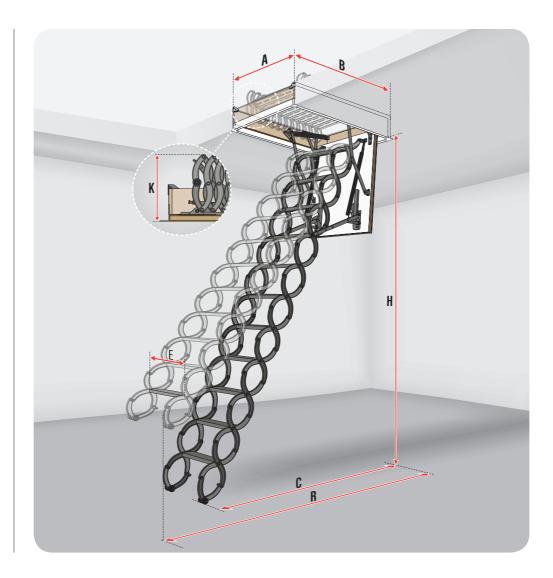
permissible loading of 200 kg heat transmission coefficient U = 1.1 W/m²K insulation thickness 3 cm hatch thickness 3.6 cm

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 69x1					
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					
3							

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-31	LSS-38		

LOFT LADDER

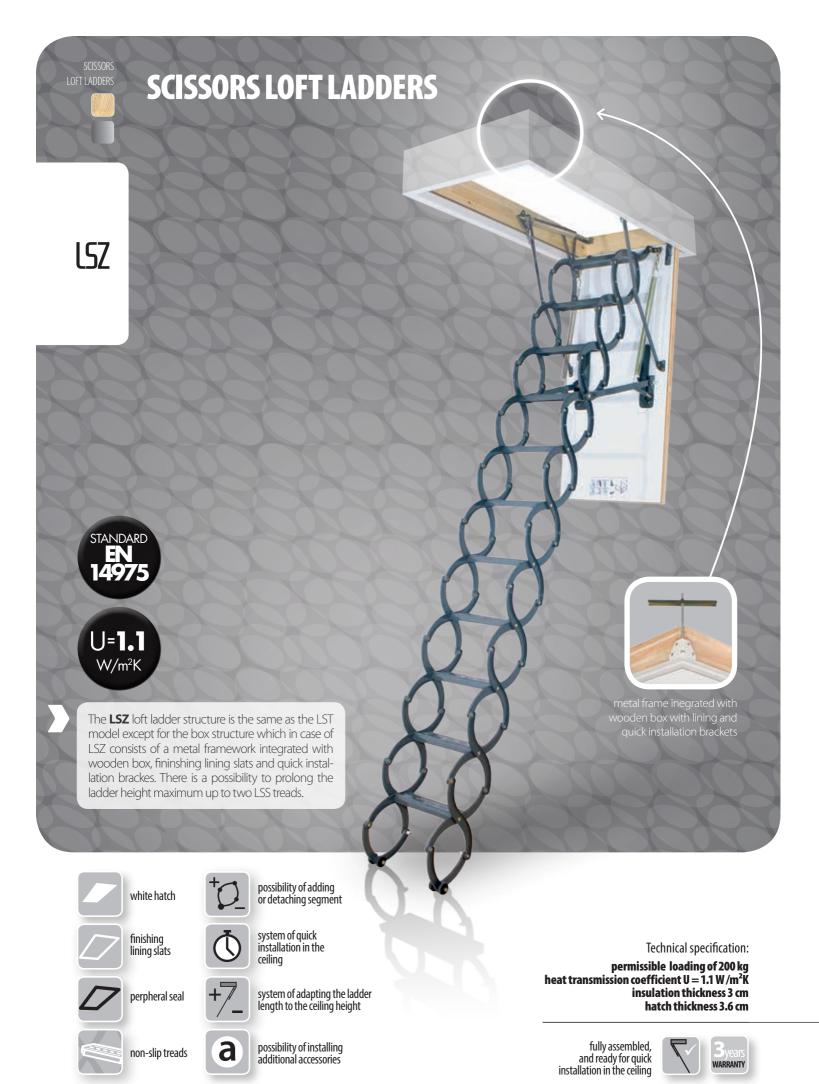
Commercial sizes [cm]		51x80	60x90	60x120	70x80	70x120
		ш			ш	
				ш		ш
Room height [cm]	Н			250-280		
Code		860402	860432	860423	860426	860436

order p	rocessing time 10 working days	
Ladders are av	ailable only in sizes shown above.	

Ladder short (10-trea	er by 1 tread d ladder)	Standard ladder (11- tread ladder)		Ladder longer by 1 tread (12- tread ladder)		Ladder lo treads (13-t	nger by 2 read ladder)	
230	250	250	280	280	300	300	330	
Sizes and dimensions of loft ladder not included into the table are identical with those for heights 250-280cm								
14	10	15	50	16	60	17	70	
135	127	146	134	153	145	163	150	

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

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



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

order processing time 10 working days Ladders are available only in sizes shown above.

Ladder shorter by 1 tread (10-tread ladder)		Standard ladder (11- tread ladder)		Ladder long (12- trea	er by 1 tread d ladder)	Ladder longer by 1 tread (12- tread ladder)		
	230	250	250 280		280	300	300	330
Sizes and dimensions of loft ladder n with those for he						re identical		
	140 150			16	60	17	70	
	135	127	146	134	153	145	163	150

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

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

LOFT LADDERS

SCISSORS LOFT LADDERS





U=**1.8*** W/m²K

> The **LSF** Fire-Resistant Loft Ladder acts as a blaze block in case of fire inside the building preventing the smoke from entering the fire-free storey, thus providing additional precious time for the fire services to arrive in the event of emergency. The Loft Ladder fire-resistance is **El₂ = 60 min**utes. The overall floor-ceiling ladder height can be increased to a maximum 320cm by adding one LSS segment.



The loft ladder hatch is equipped with an expanding seal, which under the influence of high and prevents the smoke and fire from spreading to the fire free storey.

*manufacturer's internal calculations



fire-resistant hatch



system of quick installation in the ceiling



architrave lining



system dopasowania długości drabinki do wysokości pomieszczenia



non-slip treads



możliwość montażu dodatkowych akcesoriów - str. 66-71



possibility of adding or detaching segment



fully assembled, and ready for quick installation in the ceiling

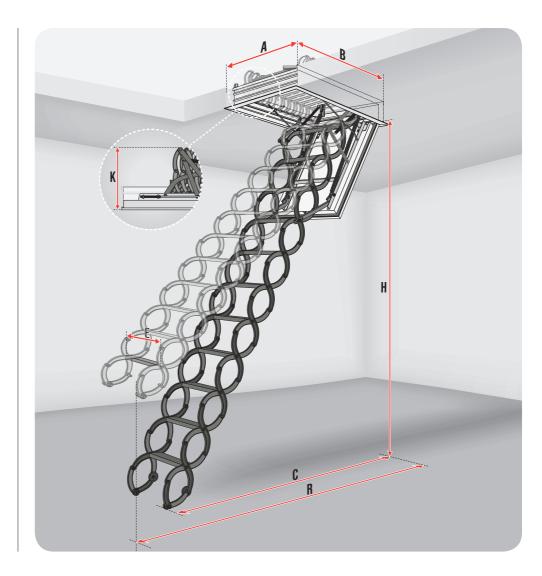


Technical specification: permissible loading of 200 kg fire-resistance El₂=60 minutes insulation thickness 3 cm

hatch thickness 5.4 cm



LSF LOFT LADDER DIAGRAM



LSF LOFT LADDER DIMENSIONS

		Standard ladder length						
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								

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		LSS-30	LSS-32		LSS-40	

LOFT LADDER

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

order processing time 10 working days Ladders are available only in sizes shown above.

Ladder short (9-tread	er by 1 tread I ladder)	Standard lad	der (10- tread der)	Ladderlonger by 1 tread (11- tread ladder)		
240	270	270	300	300 320		
Sizes and	l dimensions o wi	of loft ladder no th those for he	ot included int ights 250-280	o the table are cm	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

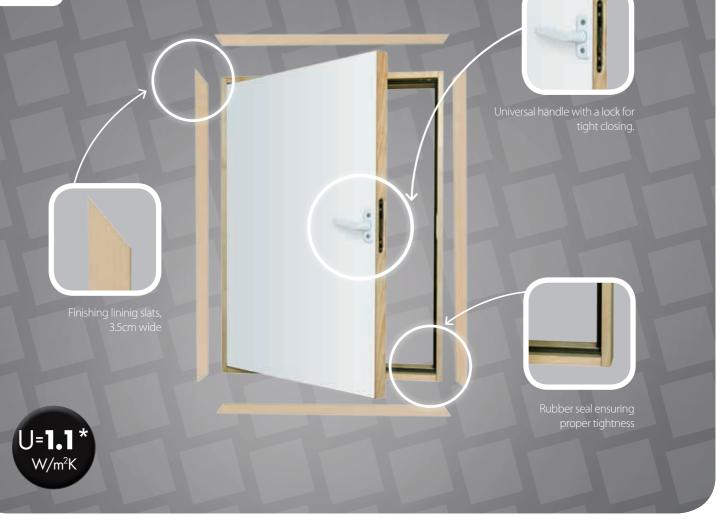
 $[\]begin{tabular}{ll} * while ordering LSS tread-the ladder commercial size and type has to be provided \\ \end{tabular}$



L-SHAPED COMBINATION DOORS

DWK

The **DWK** L-Shaped Combination Doors intended to be built into L-shaped walls, provide access to the unused space behind. Excellent thermal insulation parameters ($U = 1.1 \text{ W} / \text{m}^2\text{K}^*$) along with high tightness keep the heat-loss at mimimum. The doors may be installed in the right or left side opening versions. The standard doors are equipped with 3.5 cm wide natural colour finishing slats. The 3.6 cm thick insulated sash made as pine wood frame is veneered on both sides with white HDF panel.











Technical specification:

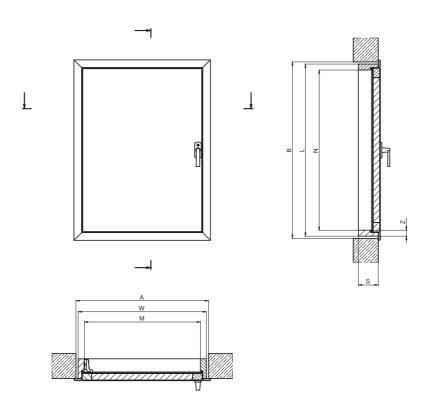
heat transmission coefficient $U = 1.1 \text{ W/m}^2\text{K}$ insulation thickness 3 cm

fully assembled, and ready for quick installation in the ceiling





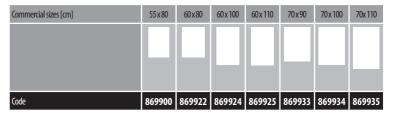
DWK DOOR DIAGRAM



DWK L-SHAPED DOORS DIMENSIONS

Opening dimensions [cm]	AxB	55x80	60x80	60x100	60x110	70x90	70x100	70x110
Door dimensions [cm]	WxL	53.4x78.4	58.4 x 78.4	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		s 9						
Frame thickness [cm]	Z				2,7			

L-SHAPED DOORS



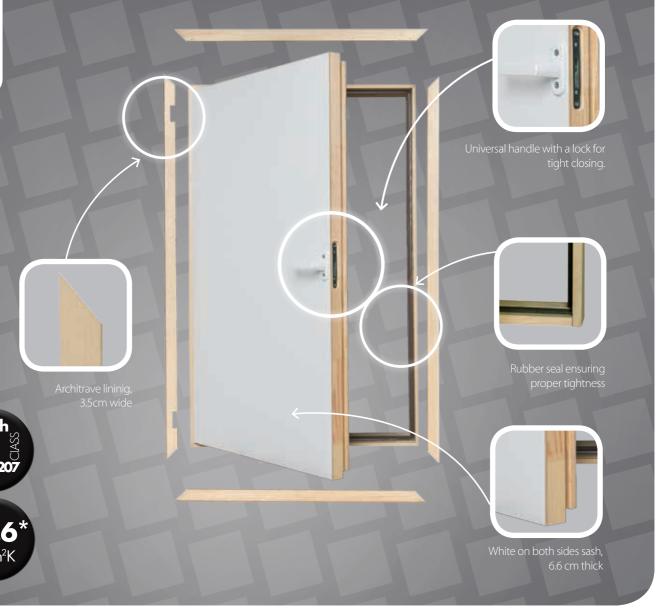
order processing time 10 working days DWK doors are available only in sizes shown above.



HIGHLY ENERGY EFFICIENT WOODEN DOORS

DWT
HIGHLY ENERGY
EFFICIENT

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









*manufacturer's internal calculations

Technical specification:

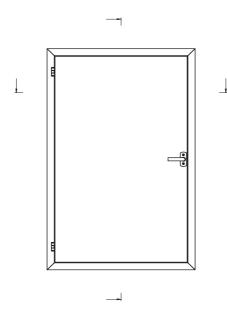
heat transmission coefficient $U = 0.6 \text{ W/m}^2\text{K}$ insulation thickness 3 cm

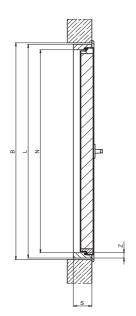
fully assembled, and ready for quick installation in the ceiling

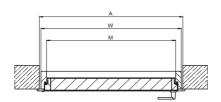




DWT DOOR DIAGRAM



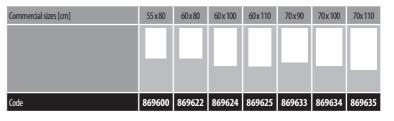




DWT L-SHAPED DOORS DIMENSIONS

Opening dimensions [cm]	AxB	55x80	60x80	60x100	60x110	70x90	70x100	70x110
Door dimensions [cm]	WxL	53.4x78.4	58.4x78.4	58.4 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	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



order processing time 15 working days

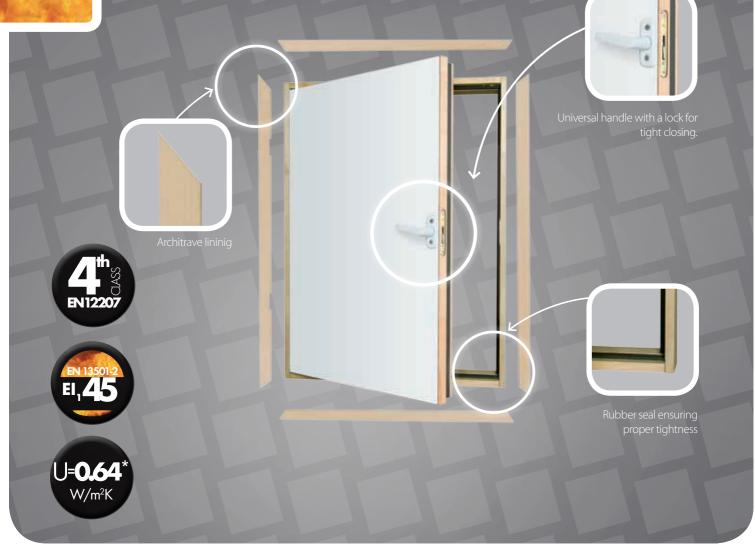
DWT doors are available only in sizes shown above.



L-SHAPED COMBINATION DOORS



The **DWF** I-shaped combination fire-resistant doors, provide access to the unused space behind and at the same time ensuring a high level of fire safety on both sides of doors (fire resistance is $EI_1/EI = 45$ minutes, satisfies the requirements of EN_13501). The white, 6.6cm thick sash with thermo-insulating material, provides an excellent barrier reducing heat loss ($U=0.64 \text{ W/m}^2\text{K*}$). The doors may be installed in two versions of opening (right or left), and as standard are also equipped with 3.5cm wide lining in natural colour.









*manufacturer's internal calculations

Technical specification:

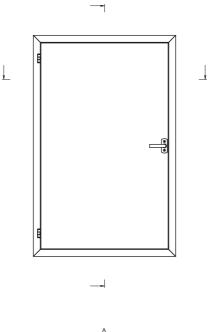
fire-resistance El₁ /El₂=45minutes heat transmission coefficient U = 0.64 W /m²K insulation thickness 6 cm

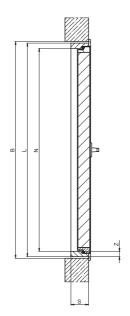
fully assembled, and ready for quick installation in the ceiling

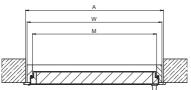




DWF DOOR DIAGRAM







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	58.4 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	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



order processing time 15 working days

DWF doors are available only in sizes shown above.





EASY

The staircase is installed in a very easy and quick way using only basic tools.

FAKRO Miller Staircases come with a 3-year warranty.





MSU Universal



MSA Altero



MSS Superior



MSW Winder





ready to be painted



easy height adjustment



supplied with installation kit

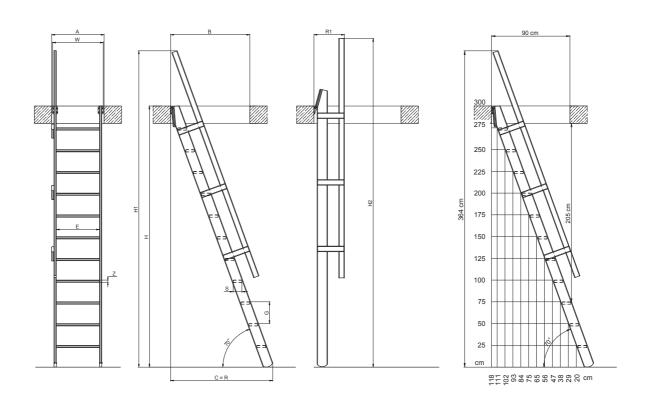








MSP PIVOT STAIRCASE DIAGRAM



MPS STAIRCASE DIMENSIONS

Size		55 cm
Max. floor height [cm]	Н	300
Installed staircase height with handrail [cm]	H1	364
Folded staircase height with handrail [cm]	H2	378
Min. ceiling opening dimensions [cm]	AxB	60x90
Distance occupied by staircase on the floor [cm]	C	118
Distance occupied by staircase on the floor with handrail [cm]	R	118
Distance occupied by staircase after folding [cm]	R1	35
Staircase width [cm]	W	59
Number of treads [pcs]		11
Distance between treads [cm]	G	25
Tread thickness [cm]	Z	2.7
Tread width [cm]	E	50
Tread depth [cm]	S	10
Ladder inclination [°]		70

MPS MILLER STAIRCASE

Size	55 cm
Code	869742

order processing time 10 working days

Staircase are available only in sizes shown above.



MILLER STAIRCASE

MSU UNIVERSAL

The **MSU Universal** is the most popular straight miller staircase made of solid spruce wood. The straight treads with fixed width, lightweight latticework construction and the appropriately selected inclination of the ladder guarantee outstanding functionality and optimal comfort while moving between floors. The staircase can be successfully utilised as a long term solution in private homes, summer houses or apartments as well as on a temporary bases wherever ensuring safe communication is required. The staircase can be additionally fitted with a handrail mounted on the right or on the left.



MXH safety handrail mounted on the right or left side of the staircase - as an accessory.



Robust tenor connections of treads in stringers strengthened with screws supplied with the staircase



ready to be painted



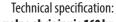
can be fitted with accessories



easy height adjustment



supplied with installation kit



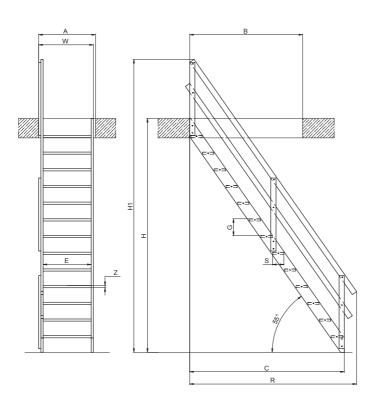
dopuszczalne obciążenie 160 kg kąt nachylenia schodów 55°

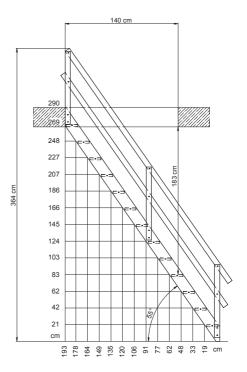






SCHEMAT SCHODÓW MSU UNIVERSAL





MPU STAIRCASE DIMENSIONS

Size		65cm
Max. floor height [cm]	Н	290
Installed staircase height with handrail [cm]	H1	364
Min. ceiling opening dimensions [cm]	AxB	70 x 140
Distance occupied by staircase on the floor [cm]	C	192
Distance occupied by staircase on the floor with handrail [cm]	R	207
Staircase width [cm]	W	65
Number of treads [pcs]		13
Distance between treads [cm]	G	21
Tread thickness [cm]	Z	2.7
Tread width [cm]	E	60
Tread depth [cm]	S	14
Ladder inclination [°]		55

MSU MILLER STAIRCASE

Size	65 cm
Code	66810

MXH handrail

Code	62028

order processing time 10 working days

Staircase is available only in size shown above.



MILLER STAIRCASE



MSA ALTERO

The **MSA Altero** staircase with alternating tread design (so called "duck-step") provides optimal level of comfort despite its significant steepness. The alternating tread staircase is ideal for rooms with limited floor space or where small openings in the ceiling restrict the free space above the stairs. As standard, the staircase comes without a handrail but it is possible to purchase the MXH-A handrail and mount it on either side of the run of the stairs.





MXH-A safety handrail mounted on the right or left side of the staircase – as an



Alternating tread design – "duck-step"



ready to be painted



can be fitted with accessories



easy height adjustment

Technical specification: permissible load 160 kg ladder inclination 65°



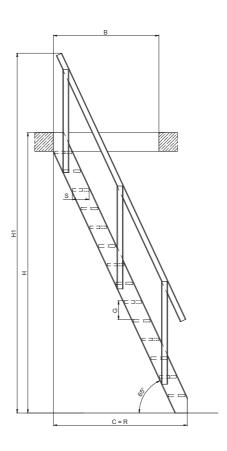
supplied with installation kit

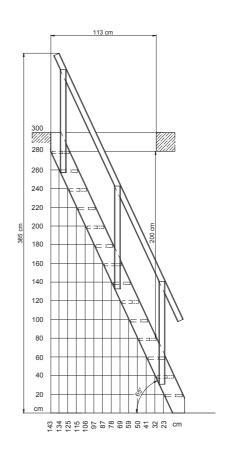




MSA ALTERO STAIRCASE DIAGRAM







MPU STAIRCASE DIMENSIONS

Size		60 cm
Max. floor height [cm]	Н	300
Installed staircase height with handrail [cm]	H1	385
Min. ceiling opening dimensions [cm]	AxB	64x113
Distance occupied by staircase on the floor [cm]	C	144
Distance occupied by staircase on the floor with handrail [cm]	R	144
Staircase width [cm]	W	63
Number of treads [pcs]		14
Distance between treads [cm]	G	20
Tread thickness [cm]	Z	2.7
Tread width [cm]	E	55
Tread depth [cm]	S	18/11
Ladder inclination [°]		65

MSA MILLER STAIRCASE

Size	60 cm
Code	869743

order processing time 10 working days Staircase is available only in size shown above.

MXH-A handrail



MILLER STAIRCASE



MSS SUPERIOR

The **MSS Superior** Miller Staircase is largest of all our models of miller staircases, characterised by a robust and durable design. In order to increase the comfort and safety of use the Superior staircase utilises wider and longer treads and more gentle inclination angle of the ladder. The staircase is made of light spruce, prepared for any colouring. The supplied instructions make adjusting the staircase to the ceiling height a very easy task for the customer. As standard, the staircase comes without a handrail but it is possible to purchase the MXH-S handrail and mount it on either side of the stairs.



Robust tenon connections of treads in stringers strengthened with screws supplied with the staircase



MXH-S safety handrail mounted on the right or left side of the staircase as an accessory.



ready to be painted



can be fitted with accessories



easy height adjustment





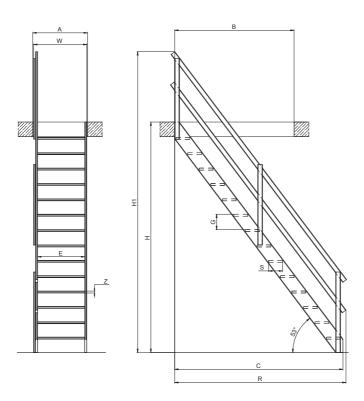
Technical specification: **permissible load 160 kg**

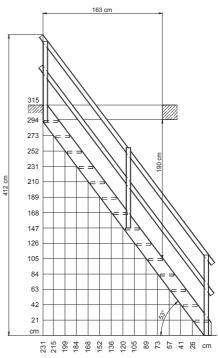
ladder inclination 53°



supplied with installation kit

MSS SUPERIOR STAIRCASE DIAGRAM





MSS STAIRCASE DIMENSIONS

Size		70 cm
Max. floor height [cm]	Н	315
Installed staircase height with handrail [cm]	H1	412
Min. ceiling opening dimensions [cm]	AxB	75x163
Distance occupied by staircase on the floor [cm]	C	230
Distance occupied by staircase on the floor with handrail [cm]	R	234
Staircase width [cm]	W	73
Number of treads [pcs]		14
Distance between treads [cm]	G	21
Tread thickness [cm]	Z	2.7
Tread width [cm]	E	65
Tread depth [cm]	S	19
Ladder inclination [°]		53

MSS MILLER STAIRCASE

Size	70 cm
Code	869744

MXH-S handrail

Code	869748

order processing time 10 working days

Staircase is available only in size shown above.





ready to be painted



can be fitted with accessories



easy height adjustment



supplied with installation kit



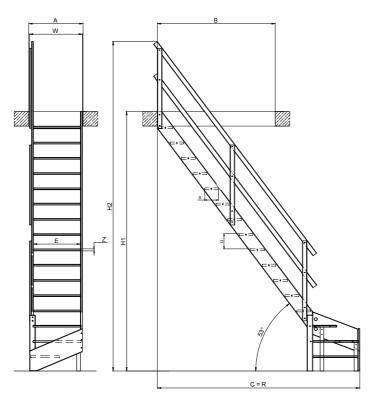


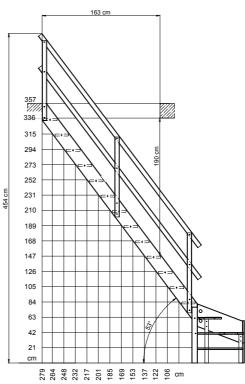


MSW-R right-handed winder treads



MSW WINDER DIAGRAM





MSW WINDER IN CONJUNCTION WITH MSS STAIRCASE DIMENSIONS

Size		70 cm
Max.floor height [cm]	Н	357
Installed staircase height with handrail [cm]	H1	454
Min. ceiling opening dimensions [cm]	AxB	75x163
Distance occupied by staircase on the floor [cm]	C	279
Distance occupied by staircase on the floor with handrail [cm]	R	279
Staircase width [cm]	W	73
Number of treads [pcs]		16
Distance between treads [cm]	G	21
Tread thickness [cm]	Z	2.7
Tread width [cm]	E	65
Tread depth [cm]	S	19
Ladder inclination [°]		53

MSW WINDER

	MSW-L	MSW-R
Code	869745	869746

MSS+MSW-L STAIRCASE

	MSS	MSW-L
Code	869744	869745

MSS+MSW-R STAIRCASE

	MSS	MSW-R
Code	869744	869746

MXH-S HANDRAIL

	MXH-S
Code	869748

order processing time 10 working days

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 adopted to the biggest loft ladder size 86x140 cm, so it can be applied to all types of loft ladders without cutting of its horizontal bars.



IXB-II Balustrade	Available for loft ladders
LAD-O Dalustidue	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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order processing time 3 working days

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.



landa llatina han dada	Available for loft ladders									
Installation brackets	LWK Komfort	LWL	LTK Energy	LWT LWF45		LDK	LMS	LMK		
Installation to the ceiling max. thickness [cm]	35		39	43		35				

Code	62085

order processing time 3 working days

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 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*.

Aughituaria lininge IVI D/W	Available for loft ladders										
Architrave linings LXL-P/-W	LWK Komfort	LWL	LTKEnergy	LWT	LWF45	LDK	LMS	LMK			
Standard dimensions [cm]	70x140										
Non-standard dimensions [cm]	1. For ladders in sizes smaller than 70x140 the standard size of architrave slats has to be cut. 2. For ladders in sizes bigger than 70x140 the non-standard architrave slats have to be ordered with the detailed box dimensions provided.										
Slats thickness after installation on box [cm]	1										
Slats width [cm]	35										
Max. witdh of the gaps, the architrave slats cover after instillation on the box [cm]	25										





	LXL-P	LXL-W			
	70x140				
Code	62087	62088			

order processing time 3 working days

Auchiteura linings LVI DVC	Available for loft ladders									
Architrave linings LXL-PVC	LWKKomfort	LWKKomfort LWL LTKEnergy LWT LWF45 LDK						LMK		
Standard dimensions [cm]	60/70 x 120 oraz 86 x 140									
Non-standard dimensions [cm]	For ladders in sizes smaller than 86x140cm, the standard size of the slats has to be cut									
Slats thickness after installation on box [cm]	1									
Slats width [cm]	3,3									
Max. witdh of the gaps, the architrave slats cover after instillation on the box [cm]	2,4									

	LXL-PVC							
	60x120 70x120 86x140							
Code	62082	62083	62084					



^{*} the architrave lining colour may slightly differ from the colour of lining in angles and hatch





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 ceiling thickness exceeding 31 cm, 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.



Day and an alternative LVM								Availab	le for loft la	lders							
Box extension LXN			LWK Kor	nfort	LWZ Plus	LWL	LTK Energ	y LWT	LWF	45 LD	к Ц	NS L	_MK	LML	LMF	LST	LSZ
Height of the box extension frame [cr	m]		10														
Max. height of non-standard box exte	ension [cm]					20				16	5			20			
IVAIL																	
LXN box extension commercial size [cm]	51x80	55 x 111					60 x 120				70 x 94	70 x 100			70x130		86x130
Code	862300	862321	862322	862307	862306	862304	862301	862302	862303	862332	862317	862316	862314	862311	862312	862313	862396

order processing time 15 working days

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 of access to the loft space. Made of wood and is installed between the last ladder's tread and the floor of the loft. It is recommended especially in situations where the upper hatch is installed on the loft ladder's box or ladders are installed in a thick ceiling.



	Available for loft ladders						
Additional tread LXT	LWL	LMK					
	LXT300						
External width of the ladders section	38						

Code 62059

order processing time 3 working days



UPPER HATCH LXW

The upper hatch prevents attic dust from accumulating on the hatch and steps of the closed ladder. It improves the overall insulating parameters and tightness 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 additional handle LXZ.



Upper hatch LXW		Available for loft ladders															
оррег паки клу	LW	K Komfort		LWZ Plus	LWL	LTK Ene	ergy	LWT	LWF45	LMS	L	MK	LML	LMF	1	_ST	LSZ
Max. thickness of the ceiling where the upper hatch can be installed [cm]	section lad	r standard u stalltion 41. F ders the use natch is a mu	ofthe	11 or after sta hatch insta	ndard upper Illtion 41.	35 ora standa upperh installtio	ard 39	or after star hatch insta	idard upper Iltion 49.	31 or aft hatch	er standard n installtion	unner	48 or after standard upper hatch istalltion 58.	33 or aft standar upper ha installtion	d 41.th	e upper hatc is a mus	h installtion st
Upper hatch box height [cm]									20								
Commercial sizes of LXW [cm]	51x80	55 x 111	60 x 90	60 x 94	60 x 100	60x111	60 x 120	60 x 130	60 x 140	70 x 80	70 x 94	70 x 100	70 x 111	70 x 120	70 x 130	70 x 140	86 x 130
Code	862200	862221	862222	862207	862206	862204	862201	862202	862203	862232	862217	862216	862214	862211	862212	862213	862296

order processing time 15 working days

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 closing of the LXW upper hatch from the loft side e.g during maintenance works in the loft or roof.





STILE ENDS LXS

The brown 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 sratched. They are available for all segment loft ladders with wooden ladder sections (besides 4-sectionand LDK loft ladder).



Code 62027

order processing time 3 working days

HANDRAIL LXH

The metal handrail makes climbing the ladder easier, hence increasing user comfort and safety. The LXH handrail is mounted onto the upper ladder sections.



Hd-:HVII	Available for loft ladders									
Handrail LXH	LWK Komfort, LWZ Plus, LTK E	nergy, LWT, LWF 45, LMS, LMK	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 75/173 to ladders with boxes over 100cm in length

order processing time 10 working days



INSULATION KIT LXD

The insulation kit provides tight insulation between the box of the mounted ladder and the opening in the ceiling, thereby allowing a" warm assembly" essential in energy-efficient and passive construction. The kit includes: air tight collar, insulation material (sheep wool blocks) and the air-permeable collar.



Insulation kit LXD	Available for loft ladders											
Insulation kit LAD	LWK Komfort	t	LWL	LTK Energy	LWT	LDK	LMS	LMK				
Standard dimensions [cm]	60/70x120 oraz 86 x 140											
Non-standard dimensions [cm]		For ladders smaller than 86x 140cm, the standard size of the kit has to be adapted										
Commercial sizes LXD [cm]	60x120	70x12	.0	86x140								
Code	80AZ13	80AZ	14	80AZ15								

order processing time 3 working days

AVAILABLE ADDITIONAL ACCESSORIES

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

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









Fakro GB Ltd
Fakro House
Astron Business Park
Hearthcote Road
Swadlincote DE11 9DW
telephone: 01283 554755 fax: 01283 224545
www. fakro.co.uk e-mail: sales@fakrogb.com