

LOFT LADDERS
ARISTO, KOMBO, LUSO, VERTICALE

JAP





LOFT LADDERS

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LOFT LADDERS

We specialize in manufacturing stairways for attics and walls that are distinctive for their modern design and extremely easy handling.

The basis for retractable attic stairs is solid, stable construction for safe, comfortable ascent.

Our attic stairs meet the strict flame resistance and thermal insulation requirements for attic stairs in passive homes.



These stairways to heaven were made by nature. The others, we made at JAP. And because people are creations of nature, a philosophical question arises:

Is nature's work perfect?

If so, if a work of nature creates another work of nature, is that also perfect? We don't know the answer, but we definitely strive for perfection.



ARISTO PP

Flame-resistant loft ladders

For passive houses



Aristo PP flame-resistant loft ladders meet the strict requirements for low-energy passive homes. Stairs with sheet-metal sandwich cap built into the ceiling. Cap contains thermal, flame-resistant insulation. The gap between the cap and frame is sealed with a flame-resistant foam strip. On the frame structure, a folding ladder is fastened to the cap. The whole stair space is closed from above by a thermally insulated cap. Both caps come standard with a lever mechanism for synchronized opening.

From the visible side, the lower cap is painted white and covered with protective film; the wooden parts of the upper cap are protected with a fungicidal solution, and the plywood used is water resistant.

Flame-resistance is verified by Pavus a.s. at its fire testing laboratory in Veselí nad Lužnicí. The product is certified by CSI Praha, Zlín branch. Thermal permeability and air permeability are verified by ift Rosenheim GmbH, Rosenheim, Germany.



ARISTO PP

Flame-resistant loft ladders

All dimensions are in millimetres.

Maximum ceiling strength: **490**.

Custom **491–600** dimensions can be ordered with side opening.

Fire resistance: EI₁ 45 / EI₂ 45 / EW 45.

Heat transfer coefficient: U = 0.66 W/(m²K).

Air permeability class: 4.

Rough construction opening (l × w)	A	B	H	R
1200 × 600	2400–2600	260	1215	1520
1200 × 700	2400–2600	360	1215	1520
1300 × 700	2400–2800	360	1310	1650
1400 × 700	2400–3100	360	1405	1770

The table shows dimensions **C** with differing **A** heights.

A	C
3100	1250
3000	1220
2900	1190
2800	1160
2700	1120
2600	1090
2500	1060
2400	1030

- A – height from floor to ceiling
- B – rung width
- C – distance from where unfolded stairs are placed on floor to end of frame
- F – frame height
- G – height of closed system
- H – height of open cap
- I – width of the visible collar of the frame
- R – maximum distance of folding stairs from end of frame when retracted
- w – width of rough construction opening
- l – length of rough construction opening

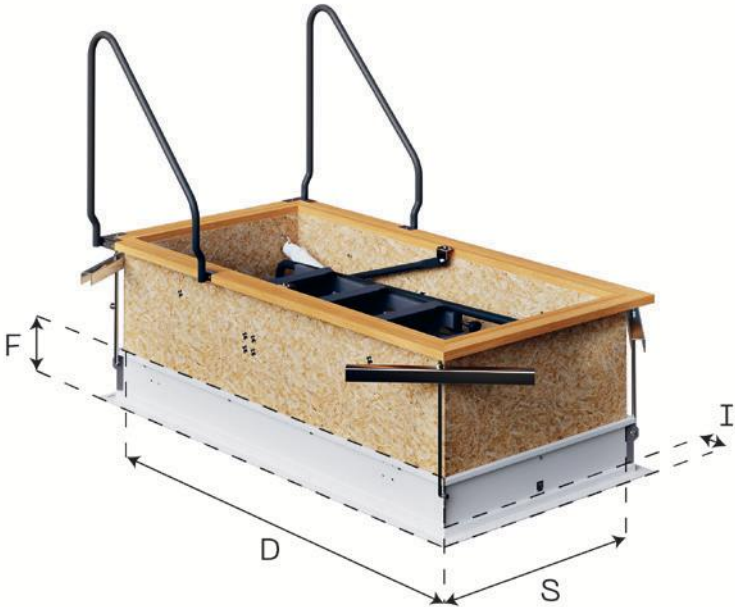
$$D = l - 15$$

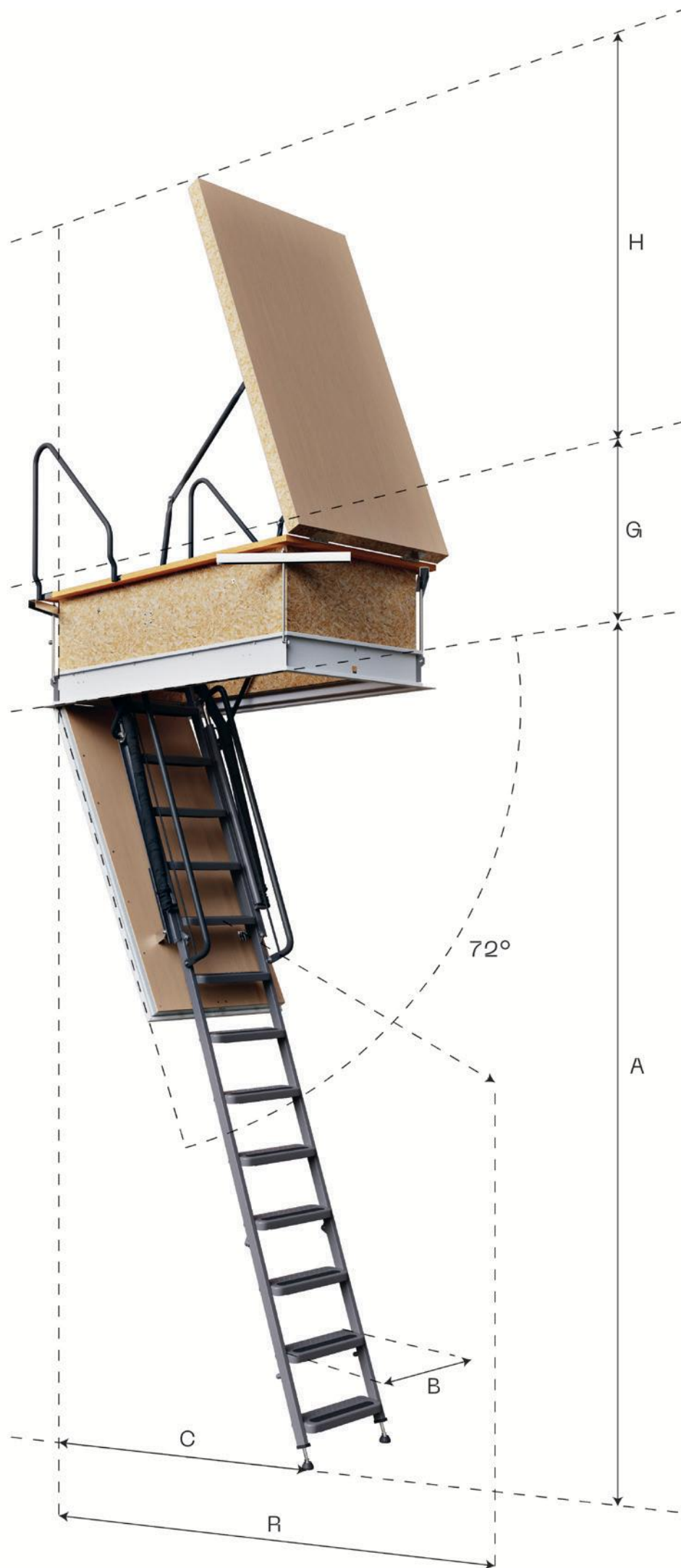
$$S = w - 20$$

$$F = 140$$

$$G = 515/615$$

$$I = 24$$





KOMBO PP

Flame-resistant loft ladders

For passive houses



Kombo PP flame-resistant loft ladders meet the strict requirements for low-energy homes. Stairs with sheet-metal sandwich cap built into the ceiling. Cap contains thermal, flame-resistant insulation. The gap between the cap and frame is sealed with a flame-resistant foam strip. On the frame structure, a folding ladder is fastened to the cap. The whole stair space is closed from above by a thermally insulated cap.

From the visible side, the lower cap is painted white and covered with protective film; the wooden parts of the upper cap are protected with a fungicidal solution, and the plywood used is water resistant.

Flame-resistance is verified by Pavus a.s. at its fire testing laboratory in Veselí nad Lužnicí. The product is certified by CSI Praha, Zlín branch. Thermal permeability and air permeability are verified by ift Rosenheim GmbH, Rosenheim, Germany.



KOMBO PP

Flame-resistant loft ladders

All dimensions are in millimetres.

Maximum ceiling strength: **405**.

Custom dimensions can be ordered: **406–600**.

Fire resistance: EI₁ 30 / EI₂ 30 / EW 30.

Heat transfer coefficient: U = 0.71 W/(m²K).

Air permeability class: 4.

Rough construction opening (l × w)	A	B
1100 × 700	2200–3200	400
1000 × 700	2200–3200	400
900 × 700	2200–3200	400

The table shows dimensions **C** and **R** with differing **A** heights.

A	C	R
3200	1584	1875
3100	1584	1875
3000	1584	1875
2900	1460	1730
2800	1460	1730
2700	1335	1585
2500	1335	1585
2300	1211	1440
2200	1211	1440

- A – height from floor to ceiling
- B – rung width
- C – distance from where unfolded stairs are placed on floor to end of frame
- F – frame height
- G – height of closed system
- H – height of open cap
- I – width of the visible collar of the frame
- R – maximum distance of folding stairs from end of frame when retracted
- w – width of rough construction opening
- l – length of rough construction opening

D = l – 20

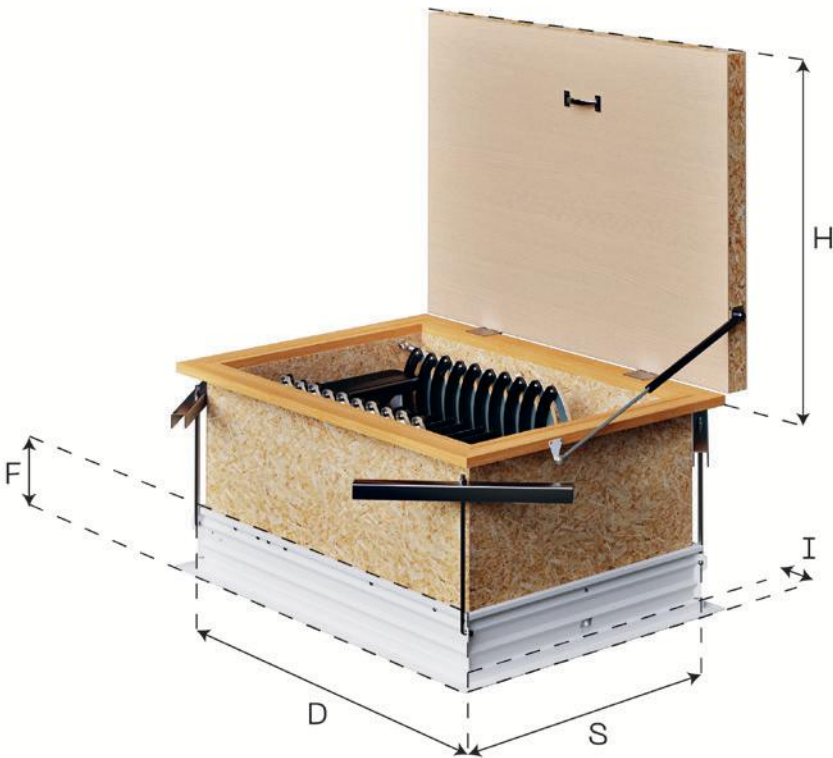
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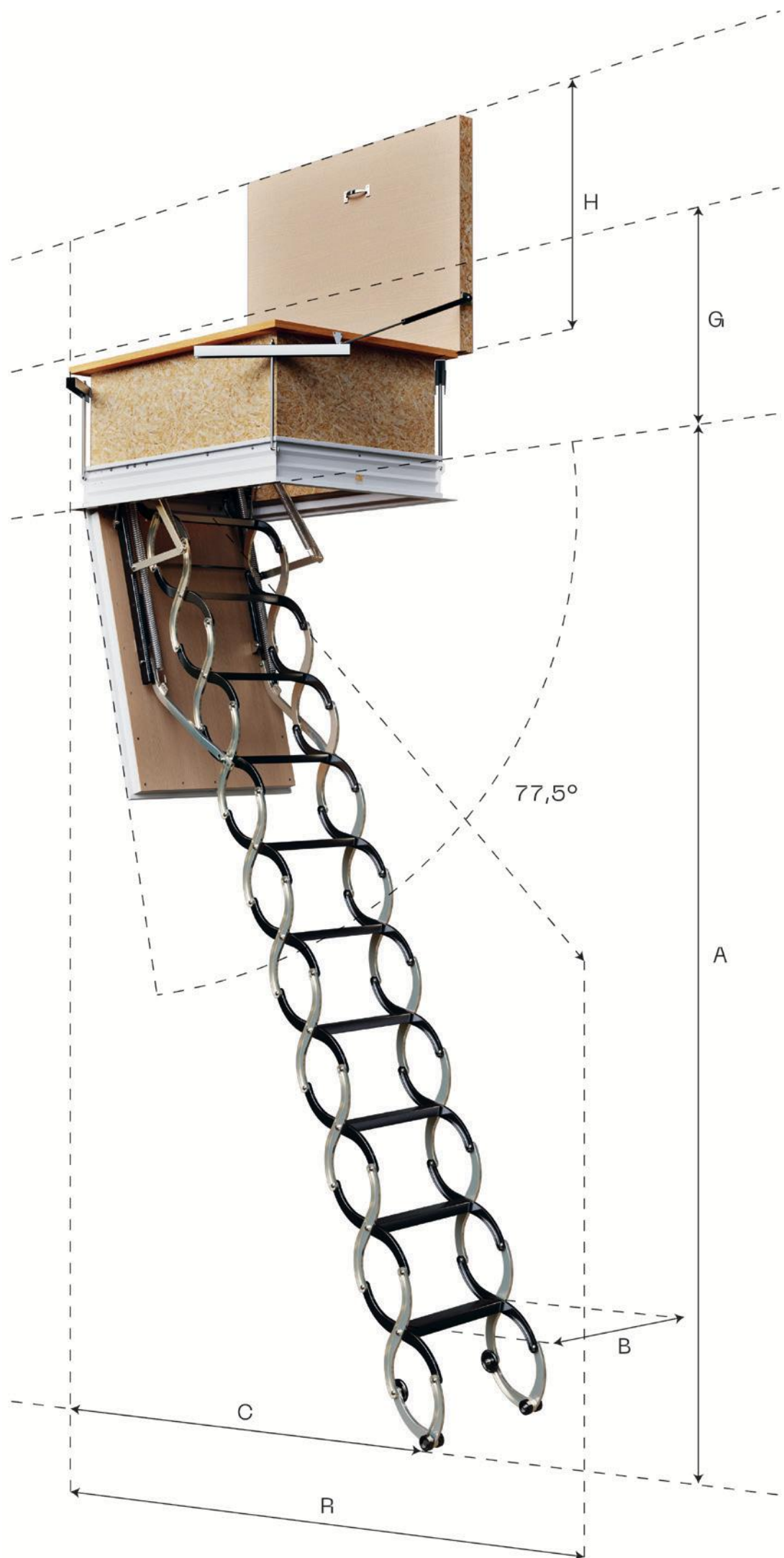
F = 140

G = 533

H = 695

I = 24





LUSSO PP

Flame-resistant loft ladders

Stairs with sheet-metal sandwich cap for installation into the ceiling.



Cap contains thermal insulation and a flame-resistant insert. Starting at dimensions of 1,000 mm, the cap's opening system is equipped with a braking mechanism against sudden opening.

SANDWICH CAP

The wooden frame is filled with insulating and flame-resistant materials and sheathed in galvanized metal. The visible part is painted white and covered with protective film. It is also possible to add a fire shutter without any retracting stairs.

Flame-resistance is verified by Pavus a.s. at its fire testing laboratory in Veselí nad Lužnicí. The product is certified by CSI Praha, Zlín branch.



LUSSO PP

Flame-resistant loft ladders

All dimensions are in millimetres.

Ceiling strength: **140–1000**.

Fire resistance: EI₁ 20 / EI₂ 60 / EW 60.

Heat transfer coefficient: U = 1.7 W/(m²K).

Rough construction opening (l × w)	A	B
700 × 500	2200–3200	300
800 × 500	2200–3200	300
900 × 500	2200–3200	300
1000 × 500	2200–3200	300
700 × 600	2200–3200	320
800 × 600	2200–3200	320
900 × 600	2200–3200	320
1000 × 600	2200–3200	320
1100 × 600	2200–3200	320
1200 × 600	2200–3200	320
800 × 700	2200–3200	400
900 × 700	2200–3200	400
1000 × 700	2200–3200	400
1100 × 700	2200–3200	400
1200 × 700	2200–3200	400

The table shows dimensions **C** and **R** with differing **A** heights.

A	C	R
3200	1400	2100
3100	1300	2000
3000	1200	1850
2900	1300	1800
2800	1450	1750
2700	1650	1700
2600	1400	1650
2500	1350	1600
2400	1000	1650
2300	1250	1600
2200	1350	1550

- A – height from floor to ceiling
- B – rung width
- C – distance from where unfolded stairs are placed on floor to end of frame
- F – frame height
- G – height of closed system
- I – width of the visible collar of the frame
- R – maximum distance of folding stairs from end of frame when retracted
- w – width of rough construction opening
- l – length of rough construction opening

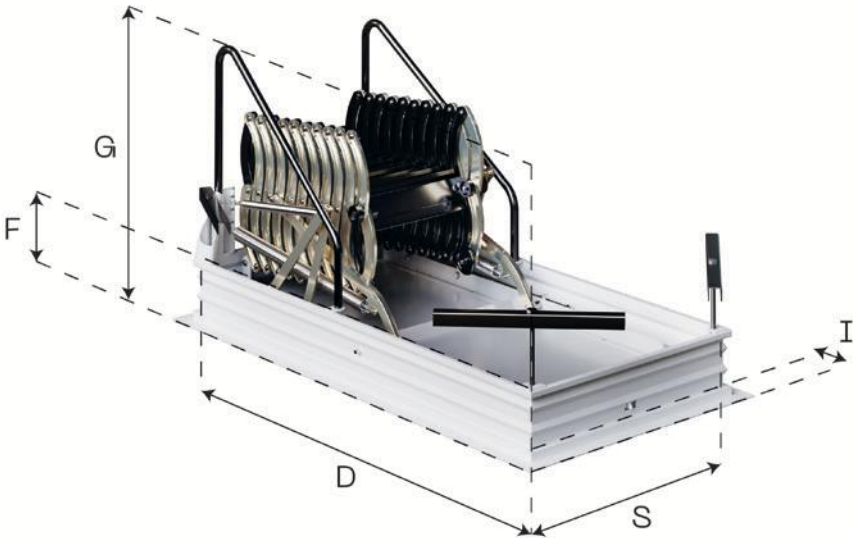
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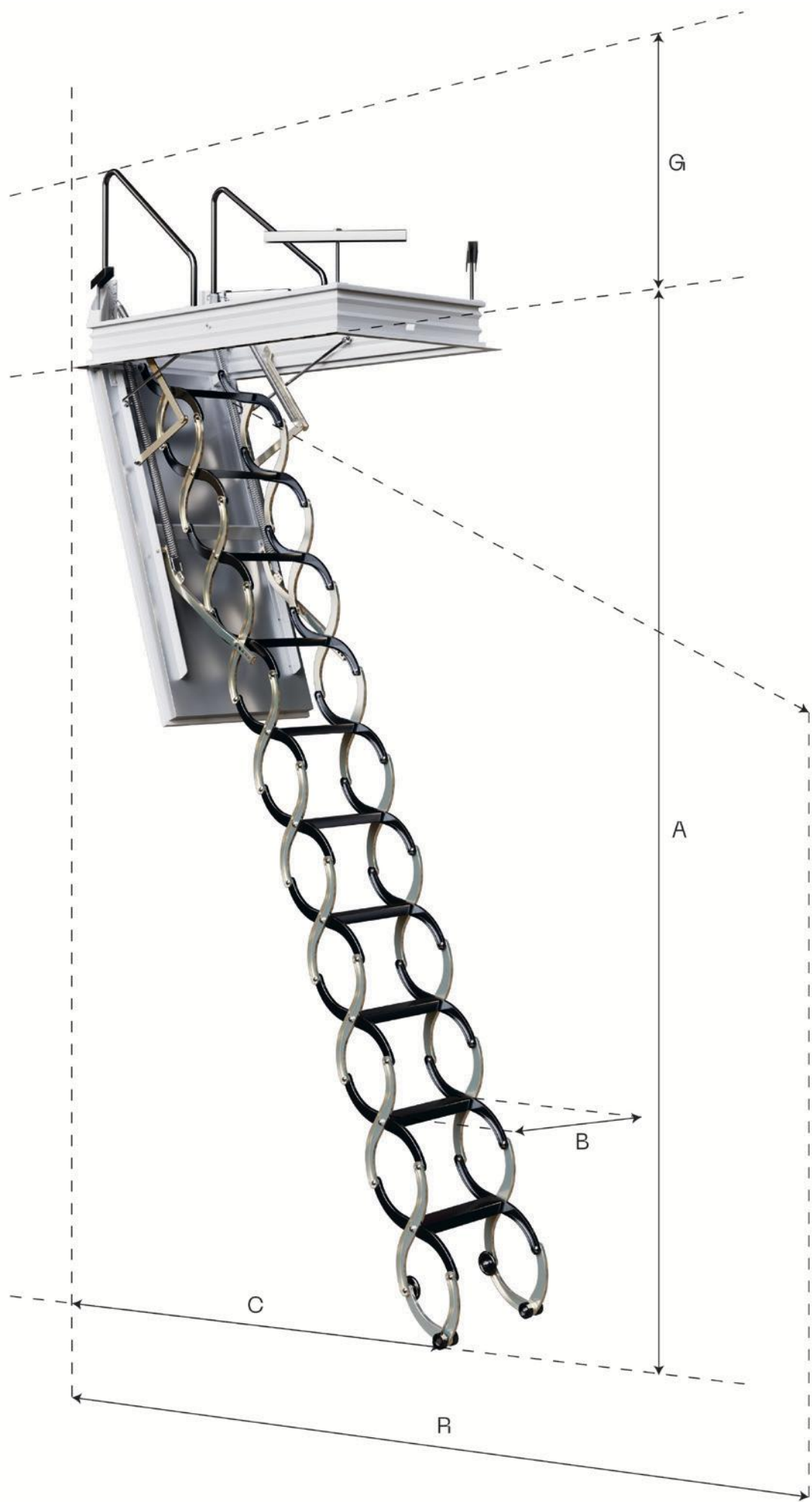
S = w – 20

F = 140

G = 400

I = 24





LUSSO ZP

Thermally insulated loft ladders

Stairs with sheet-metal sandwich cap for installation into the ceiling.



Cap contains thermal insulation. Starting at dimensions of 1,000 mm, the cap's opening system is equipped with a braking mechanism against sudden opening.

SANDWICH CAP

The wooden frame filled with insulation is sheathed with galvanized sheet metal. The visible part is painted white and covered with protective film. It is also possible to add a thermally insulated shutter without any retracting stairs.



LUSSO ZP

Thermally insulated loft ladders

All dimensions are in millimetres.

Ceiling strength: **140–1000**.

Heat transfer coefficient: $U = 1.9 \text{ W/(m}^2\text{K)}$.

Rough construction opening (l × w)	A	B
700 × 500	2200–3200	300
800 × 500	2200–3200	300
900 × 500	2200–3200	300
1000 × 500	2200–3200	300
700 × 600	2200–3200	320
800 × 600	2200–3200	320
900 × 600	2200–3200	320
1000 × 600	2200–3200	320
1100 × 600	2200–3200	320
1200 × 600	2200–3200	320
800 × 700	2200–3200	400
900 × 700	2200–3200	400
1000 × 700	2200–3200	400
1100 × 700	2200–3200	400
1200 × 700	2200–3200	400

The table shows dimensions **C** and **R** with differing **A** heights.

A	C	R
3200	1400	2100
3100	1300	2000
3000	1200	1850
2900	1300	1800
2800	1450	1750
2700	1650	1700
2600	1400	1650
2500	1350	1600
2400	1000	1650
2300	1250	1600
2200	1350	1550

- A – height from floor to ceiling
- B – rung width
- C – distance from where unfolded stairs are placed on floor to end of frame
- F – frame height
- G – height of closed system
- I – width of the visible collar of the frame
- R – maximum distance of folding stairs from end of frame when retracted
- w – width of rough construction opening
- l – length of rough construction opening

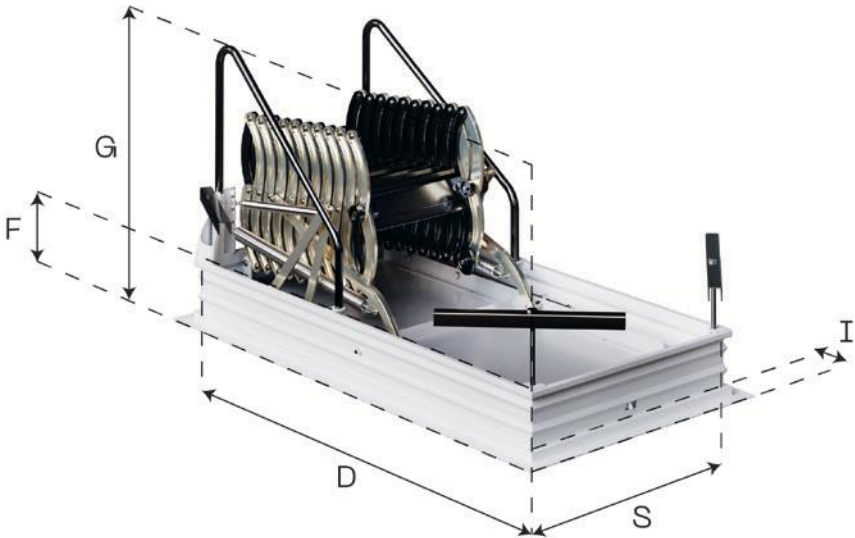
D = l – 15

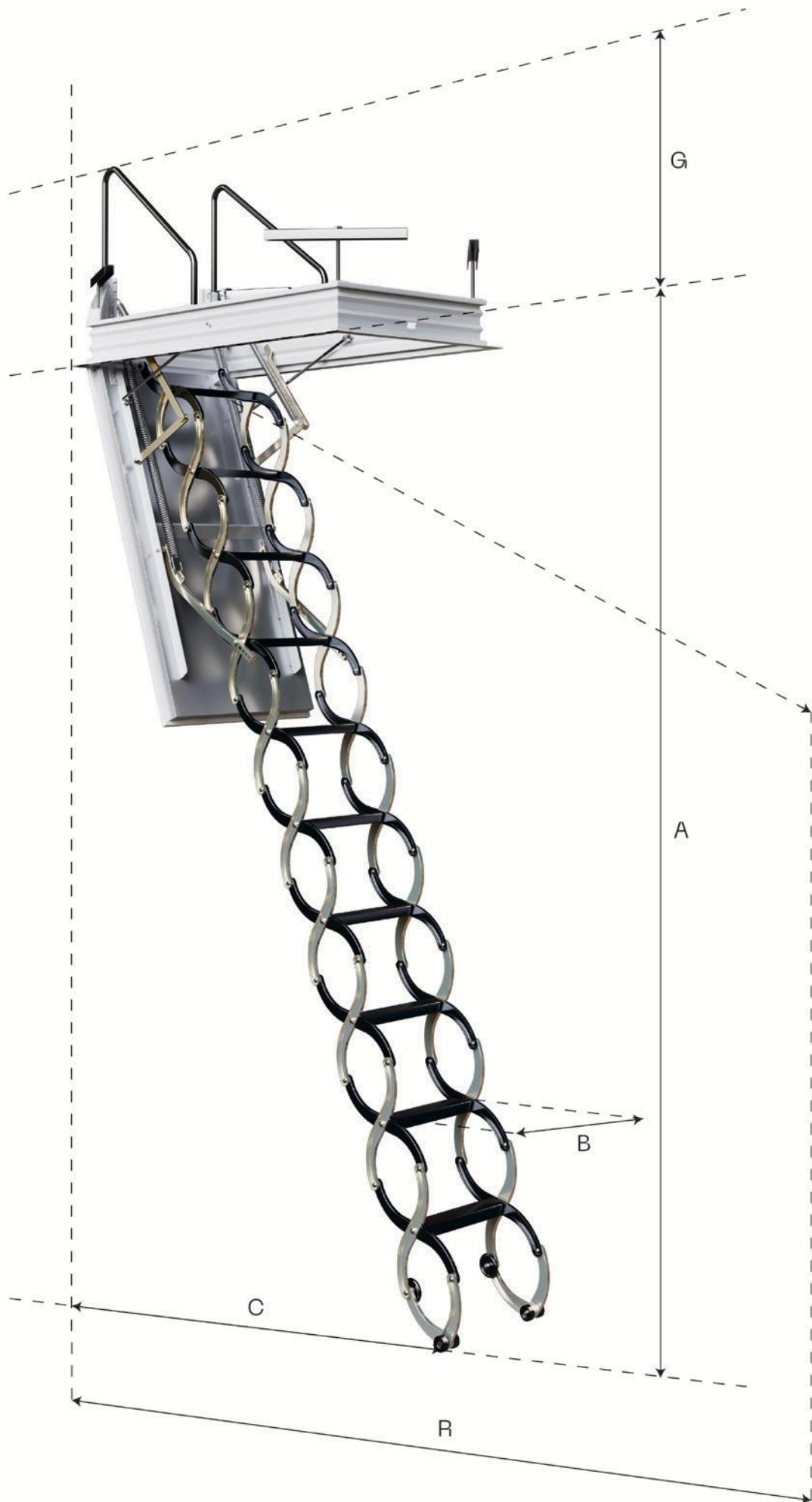
S = w – 20

G = 400

F = 140

I = 24





LUSSO

Loft ladders

Stairs with a simple particle-board cap for installation into the ceiling.





LUSSO

Loft ladders

All dimensions are in millimetres.

Min. dimensions of rough construction opening (l x w): **700 x 500**.

Max. dimensions of rough construction opening (l x w): **1400 x 1000**.

Maximum ceiling strength: **1000**.

The frame (passage) for the stairs can be made with custom dimensions.

The cap cannot be ordered separately.

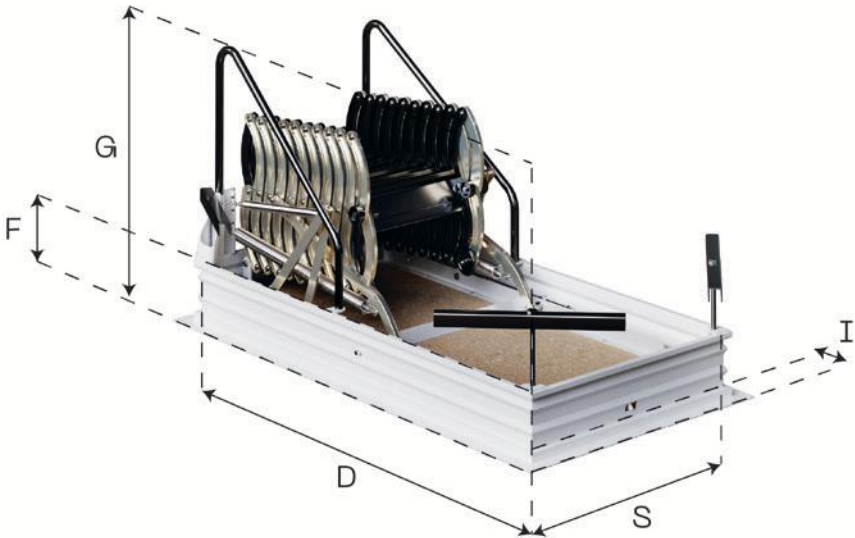
Rough construction opening (l x w)	A	B
700 x 500	2200–3200	300
800 x 500	2200–3200	300
900 x 500	2200–3200	300
1000 x 500	2200–3200	300
700 x 600	2200–3200	320
800 x 600	2200–3200	320
900 x 600	2200–3200	320
1000 x 600	2200–3200	320
1100 x 600	2200–3200	320
1200 x 600	2200–3200	320
800 x 700	2200–3200	400
900 x 700	2200–3200	400
1000 x 700	2200–3200	400
1100 x 700	2200–3200	400
1200 x 700	2200–3200	400

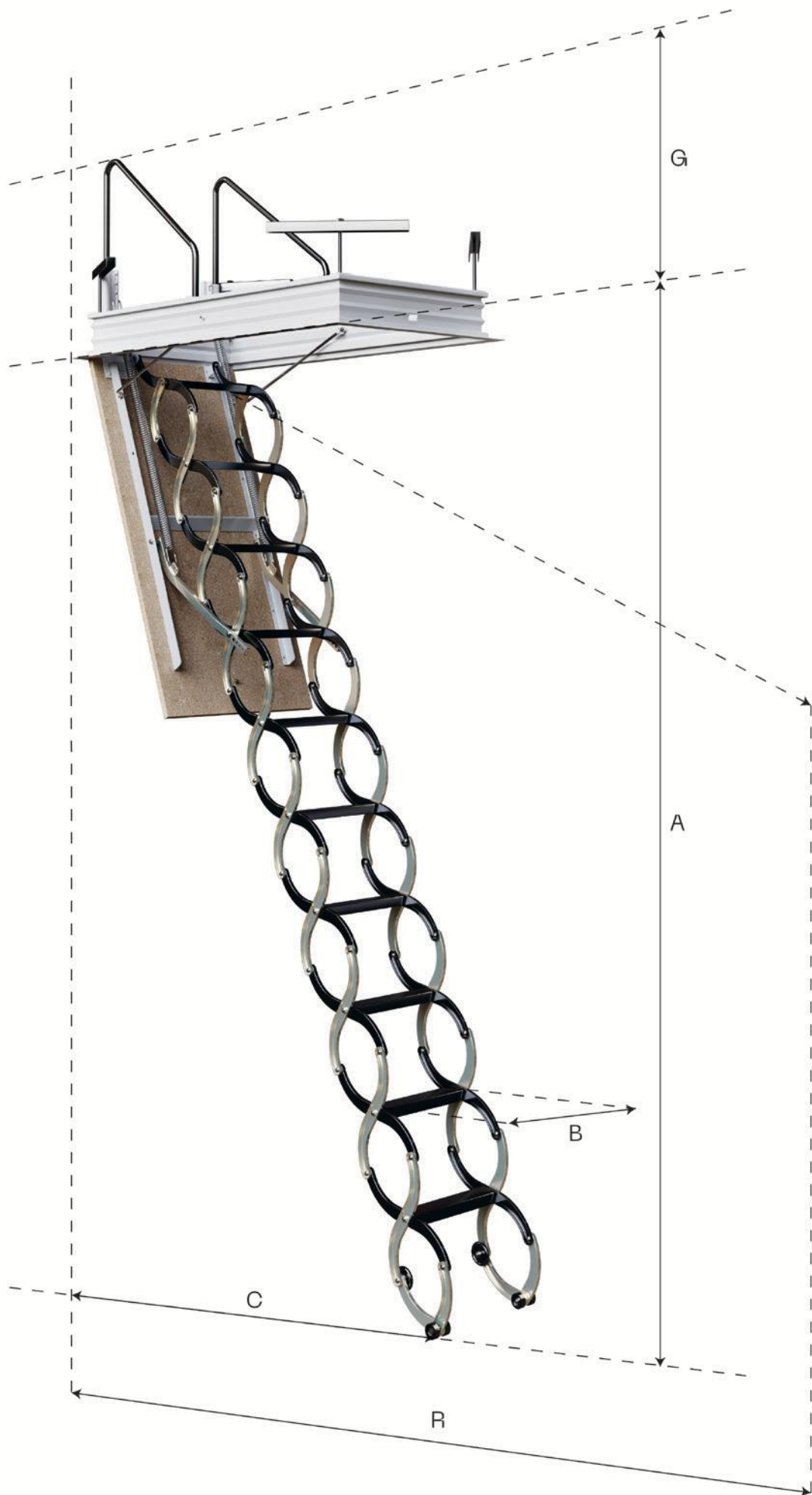
The table shows dimensions **C** and **R** with differing **A** heights.

A	C	R
3200	1400	2100
3100	1300	2000
3000	1200	1850
2900	1300	1800
2800	1450	1750
2700	1650	1700
2600	1400	1650
2500	1350	1600
2400	1000	1650
2300	1250	1600
2200	1350	1550

- A – height from floor to ceiling
- B – rung width
- C – distance from where unfolded stairs are placed on floor to end of frame
- F – frame height
- G – height of closed system
- I – width of the visible collar of the frame
- R – maximum distance of folding stairs from end of frame when retracted
- w – width of rough construction opening
- l – length of rough construction opening

- D = 1 – 15
- S = w – 20
- F = 140
- G = 400
- I = 24





VERTICALE

Loft ladders

Stairs with a simple particle-board cap for installation into the wall.





VERTICALE Loft ladders

All dimensions are in millimetres.
Maximum wall strength: **1000**.
The cap cannot be ordered separately.

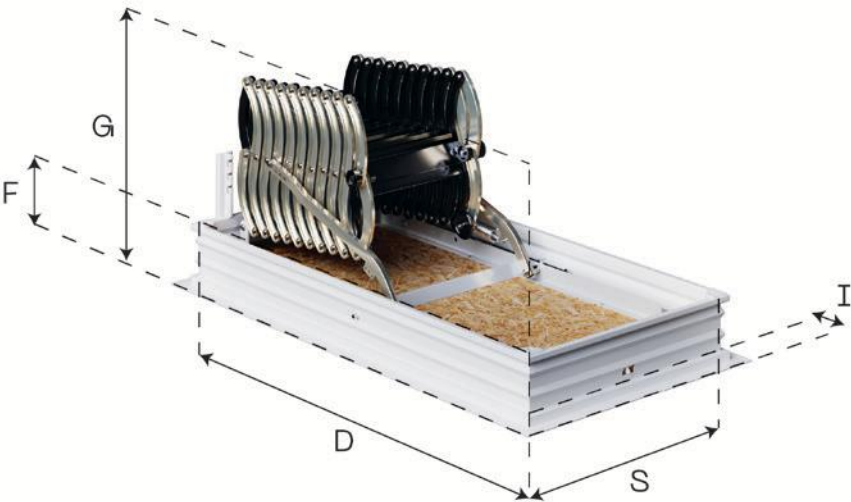
Rough construction opening (l × w)	A	B
900 × 700	2200–3200	400
1000 × 700	2200–3200	400
1100 × 700	2200–3200	400
1200 × 700	2200–3200	400

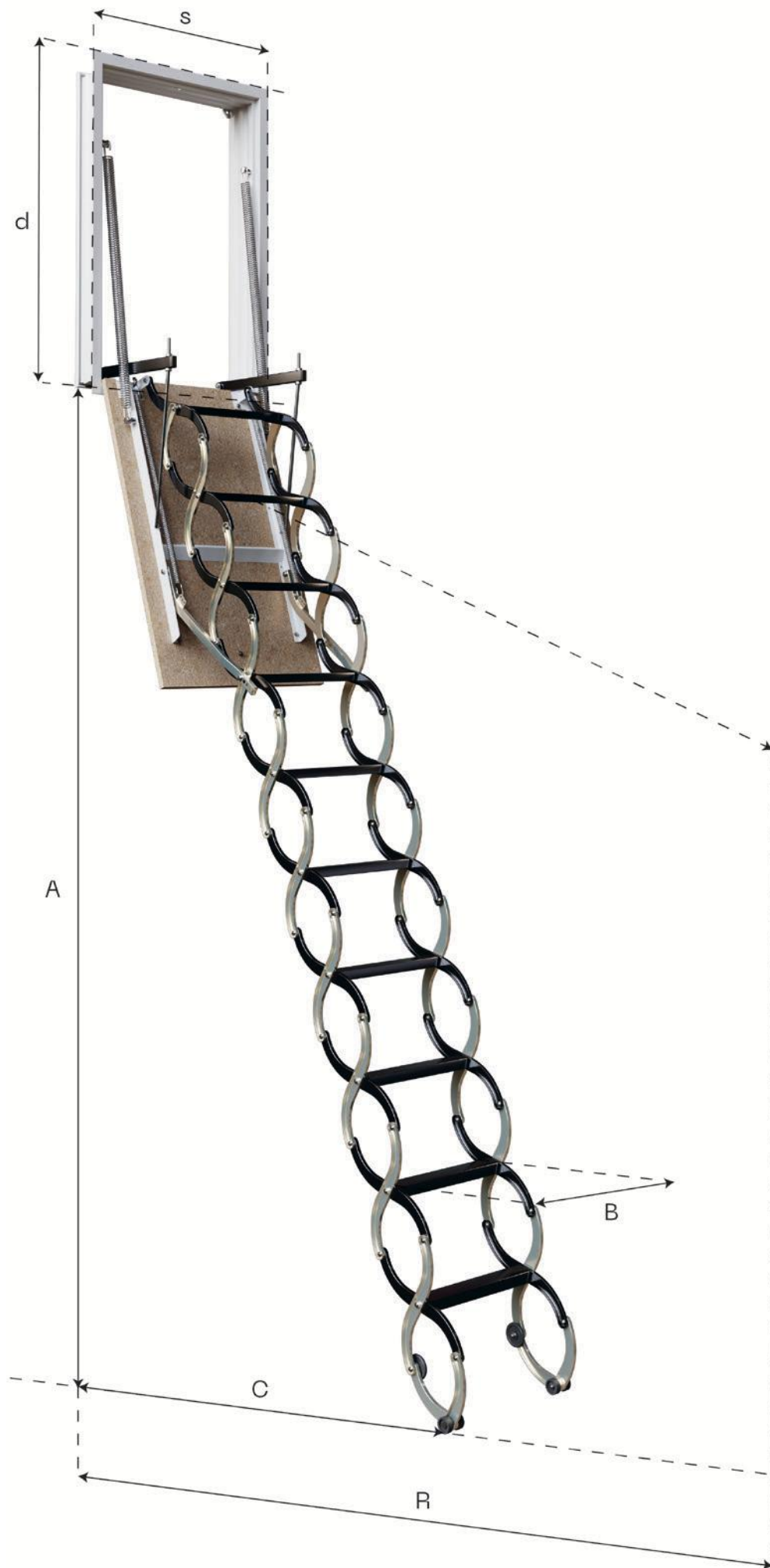
The table shows dimensions **C** and **R** with differing **A** heights.

A	C	R
3200	1700	2100
3100	1800	2000
3000	1400	1900
2900	1500	1850
2800	1600	1800
2700	1300	1750
2600	1400	1700
2500	1500	1650
2400	1100	1550
2300	1200	1500
2200	1300	1400

- A – height from floor to ceiling
- B – rung width
- C – distance from where unfolded stairs are placed on floor to end of frame
- F – frame height
- G – height of closed system
- I – width of the visible collar of the frame
- R – maximum distance of folding stairs from end of frame when retracted
- w – width of rough construction opening
- l – length of rough construction opening

D = l – 15
S = w – 20
F = 140
G = 400
I = 24





TECHNICAL PARAMETERS

- FRAME

The frame is welded from rolled profiled sheet metal with Komaxit surface treatment (white).

- BODY OF STAIRWAY

- KOMBO and LUSO: rungs – rolled sheet metal S profile stampings with Komaxit surface treatment (black) – couplings
- S profile galvanized sheet metal stampings (yellow chromate).
- ARISTO: steel frame with sheet metal stampings and Komaxit surface treatment (white).

- CAP

- a) simple – raw particle board 16 mm thick without surface treatment.
- b) sandwich – the wooden frame filled with insulation material is sheathed with galvanized sheet metal; the visible part is painted white and covered with protective film.

- FITTINGS AND FASTENERS

made of high-strength material with galvanized surface.

- HINGES

- LUSO – with thermally insulated, flame-resistant caps, in stainless steel.
- ARISTO and KOMBO – stainless steel for lower cap, galvanized for upper cap.

- LOAD CAPACITY

Maximum load capacity is 150 kg.

- CEILING STRENGTH

If the thickness of the ceiling into which you want to install the stairway is up to 230 mm, the included screws are long enough for mounting. Otherwise, if the ceiling is 230 mm or thicker, longer screws must be used. Indicate this on the order, and longer screws will be delivered to you.

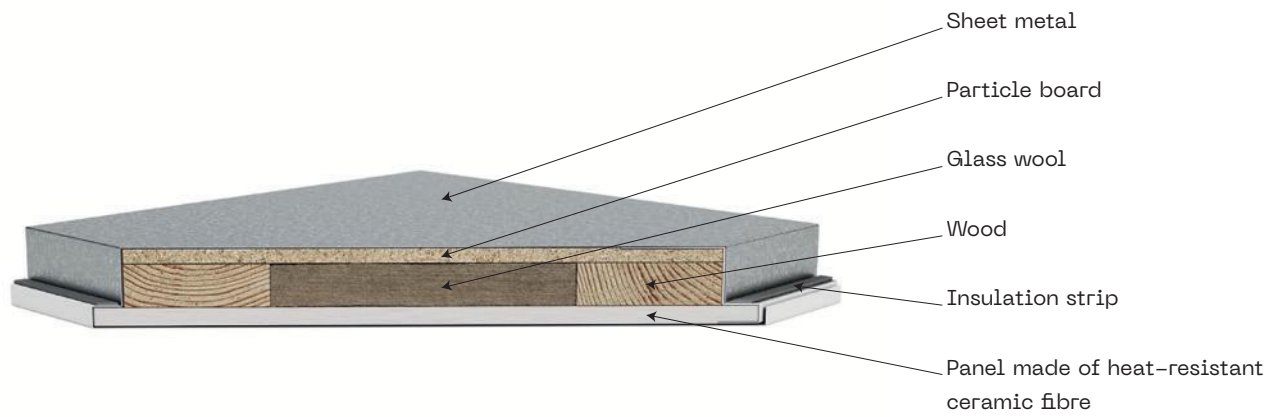
INSTALLATION ON A THIN CEILING



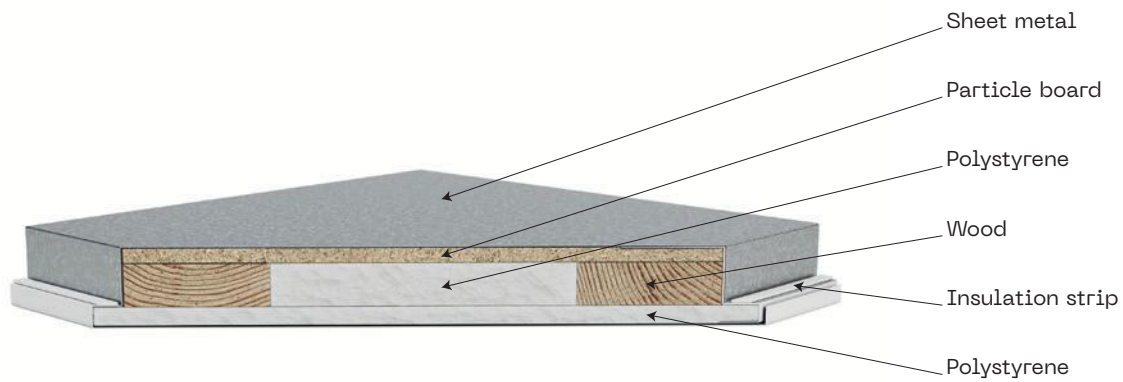
INSTALLATION ON A THICK CEILING



FLAME-RESISTANT STAIRS: CUTAWAY OF LOWER CAP



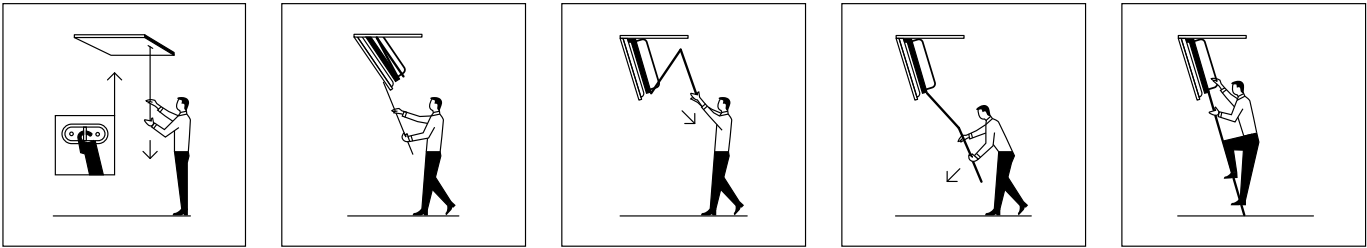
THERMALLY INSULATED STAIRS: CUTAWAY OF LOWER CAP



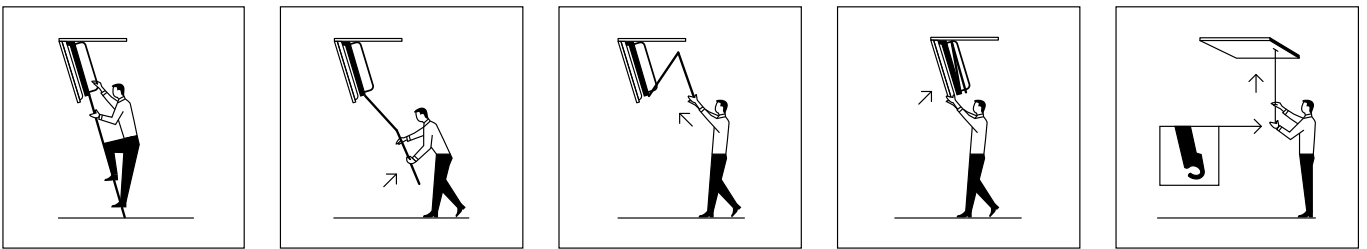
DEMONSTRATION OF PRACTICAL USE

ARISTO LOFT LADDERS

Unfolding

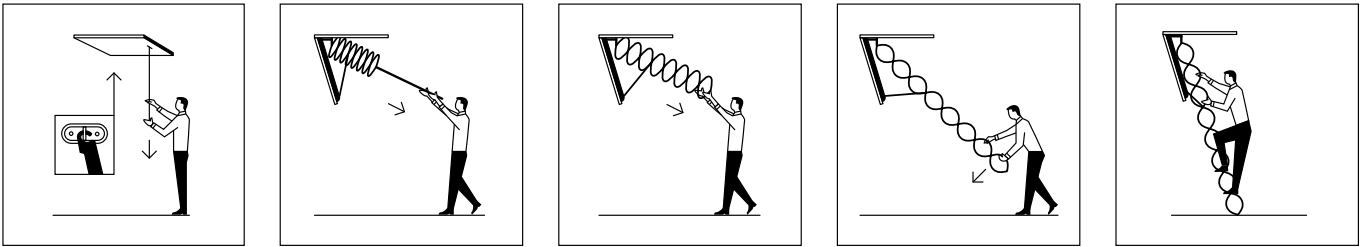


Closing

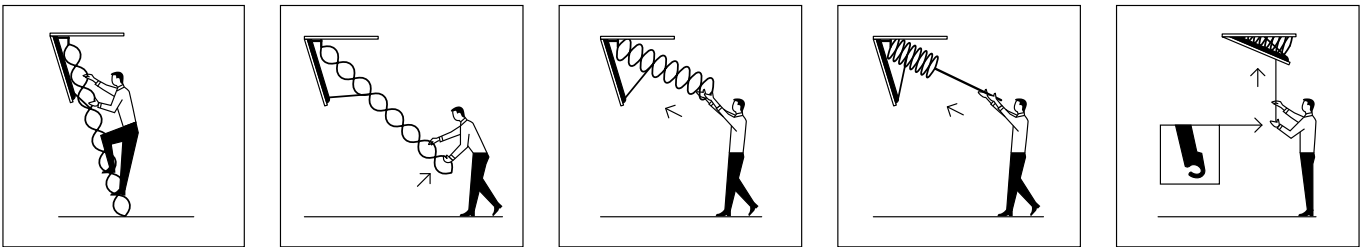


KOMBO AND LUSO LOFT LADDERS

Unfolding



Closing



ACCESSORIES

UPPER HANDLE

Can be added to any Lusso retractable staircase whose rough construction opening is 700 mm or wider. On Lusso ZP and Lusso PP, the handle is added automatically for those dimensions and is included in the price. The handle comes with Aristo staircases.



UPPER PARTICLE BOARD ATTACHMENT WITH THERMALLY INSULATED CAP

Can be added to any Lusso loft ladder. The side tilt makes handling the upper cap easier. The hinges have a safety lock. The handle and upper attachment cannot be used together — the handle is taller.



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LOFT LADDERS

ARISTO, KOMBO, LUSO, VERTICALE

JAP

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