

Attic stairs fire protection datasheet



Use configurator: www.massbox.de

So far German only. Sorry for the inconvenience.

Especially important for fire protection: Dimensions! Completed, fire resistance compliant ceiling opening!

Dimensions in centimetres	FS30	FS30 2S	FS90 2S
Ceiling opening dimensions (Length x Width)	GutHolz/AluDrei min. 104 x 50 StahlBlau min. 110 x 50 Liliput min. 80* x 50 max. 160 x 80	GutHolz/AluDrei min. 104 x 50 StahlBlau min. 110 x 60 Liliput min. 80* x 50 max. 140 x 80	GutHolz/AluDrei min. 105 x 55 StahlBlau min. 110 x 65 Liliput min. 90 x 55 max. 140 x 70
Ceiling thickness = casing height (additional step/s in high casings)	17 - 90	20 - 60 Casing not higher than ceiling thickness!	20 - 50 Casing must match ceiling thickness!
Floor-to-ceiling heights and type of stairs and additional features determine the minimum length of the ceiling opening. Use configurator!			
Floor-to-ceiling height (min. - max.)	GutHolz/AluDrei 197 - 358 StahlBlau 237 - 312 Liliput 190 - 410**	GutHolz/AluDrei 197 - 342 StahlBlau 237 - 312 Liliput 190 - 410**	GutHolz/AluDrei 197 - 326 StahlBlau 237 - 312 Liliput 190 - 410**

Dimensions are construction side dimensions. Depending on the type of stairs and with further additional features divergent dimensions may apply.

Ceiling opening dimensions = order dimensions. For installation space, factory-made casing dimensions are 1.5 cm (length/width) smaller.

Depending on the ceiling thickness, type of stairs and additional features, Wellhöfer installs EN compliant additional step/s in high casings.

* We recommend a minimum length of at least 90 cm for the ceiling opening, otherwise the clearance will be very narrow!

** For floor-to-ceiling heights 320 cm and higher the concertina stair type Liliput always require the comfort operation for the stair section.

Additional feature fire protection FS Always in combination with Wellhöfer attic stairs

Component tested as installed system: Attic stairs and ceiling connection, installation gap up to a maximum of 20 mm width, combination with thermal protection. Installation in fire-protected ceiling openings in wooden beam ceilings, solid ceilings and suspended ceilings. Incl. FS installation kit (all required installation materials) and tested connection system for dry installation.

Fire protection FS30 Fire resistance **30 minutes from below** (DIN 4102-2)
EI,30 (ÖNORM B 3860)

Frame: 19 mm multifunction board with circumferential retardation strip, foil-coated, white, suited for load-bearing purposes in moist areas (EN 13986-P5)
Attic hatch door: 19 mm chipboard B1; 16 mm chipboard E1, melamine resin-coated, white, ABS furniture edge with retardation strips
Braid: Fire class B1, hardly flammable
Cover profiles: Plastic, white, on mitre
Thermal protection WS3D as standard, WS4D / WSPH optionally

Fire protection FS30 2S Fire resistance **30 minutes from top and bottom** (DIN 4102-2)

Frame: 2x 6,5 mm multiplex board with 6 mm silicate fire protection board in sandwich; externally 2x circumferential retardation strips; corner reinforcement with external aluminium brackets
Attic hatch door: 16 + 19 mm chipboards B1, melamine resin-coated, white, edges with retardation strips; 2x locking bolts
Braids: 2x; Fire class B1, hardly flammable
Cover profiles: Plastic, white, on mitre
Thermal protection WS3D as standard

Fire protection FS90 2S Fire resistance **90 minutes from top and bottom** (DIN 4102-2)

Frame: 2x 12 mm silicate fire protection boards with 18 mm multifunction board in sandwich; externally 2x circumferential retardation strips
Attic hatch door: 2x 16 mm chipboard B1, melamine resin-coated, white, with 25 mm calcium silicate board in sandwich, edges with retardation strips; 2x locking bolts
Braids: 2x; Fire class B1, hardly flammable
Cover strips top: Fire class A1
Cover profiles: Plastic, white, on mitre
Thermal protection WS3D as standard

Important: Execution of the ceiling opening

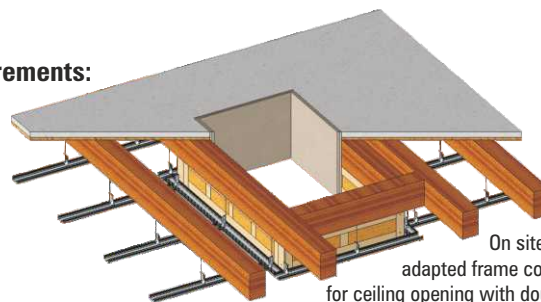
The ceiling opening on site must satisfy the fire resistance requirements:

- All-round and on the complete finished ceiling thickness
- If required, replacement with frame construction on the underside adapt to the thickness of the finished ceiling

The clear dimensions of the completed, fire resistance compliant ceiling opening, together with the floor-to-ceiling height, provide the 4 order dimensions for the attic stairs.

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On site example: adapted frame construction for ceiling opening with double-sided fire protection from top and bottom FS 2S.



Attic stairs GutHolz datasheet

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Dimensions in centimetres

	Standard sizes				Custom-made
Ceiling opening dimensions (Length x Width)	110 x 60	120 x 60	130 x 60	140 x 60	min. 100 x 50
	110 x 70	120 x 70	130 x 70	140 x 70	max. 160 x 100
Ceiling thickness = casing height	25				17 - 90*
Floor-to-ceiling heights and additional features determine the minimum length of the ceiling opening. Use configurator!					
Floor-to-ceiling height (min. - max.)	197 - 360				

Dimensions are construction side dimensions for **attic stairs GutHolz with thermal protection WS3D**. Divergent dimensions may apply in combination with additional features. Ceiling opening dimensions = order dimensions. For installation space, factory-made casing dimensions are 1.5 cm (length/width) smaller.

* High casings for thick ceilings are provided with EN compliant additional step/s, e.g. GH WS3D from casing height ≥ 34 cm: 1 add. step, from ≥ 67 cm: 2 add. steps. For ceiling thicknesses < 25 cm the casing is lowered only at the exit, otherwise keeps the circumferential 25 cm height for safe fixing of the guardrail.

Frame

19 mm multifunction board, foil-coated, white, suited for load-bearing purposes in moist areas (EN 13986-P5)

Attic hatch door (divergent with ceiling-flush version)

19 mm chipboard, melanine resin-coated, white, circumferential ABS furniture edge

hoka twin-wall-sealing

TPV-profile with two degrees of hardening, lift range of sealing 4 mm, resistant against temperature / environmental influences and ageing, circumferential with groove in the attic hatch fold

Cover profiles (divergent with ceiling-flush version)

Plastic, white, rounded special profile 40 x 6 mm, on mitre, pre-mounted adhesive tape, plugin-system with corner joints; for custom-made attic stairs 55 mm wide as an option

Lifting mechanism

Well-engineered lever / spring system balances weight of stairs; even contact pressure for proper closing; ZD latch
Spring balancer dimensioned for long-time function, mechanical parts endurance tested

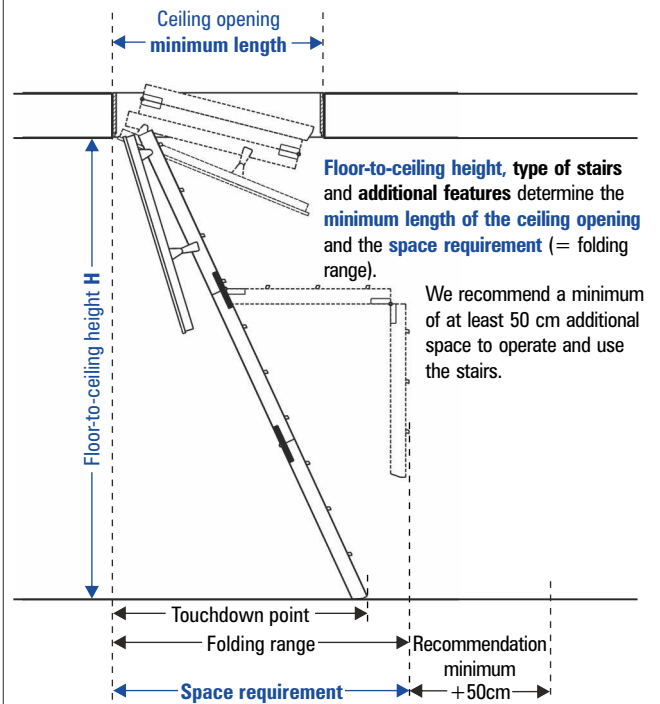
Swivel fitting

For controlling the attic hatch door; not visible when closed, allows cladding up to a thickness of 20 mm and a distributed load of 10 kg/m² (hatch door ≤ 1 m²); request stronger springs for hatch doors > 1 m²

Stairs GutHolz, 3-section folding wooden stairs

Stringers: Solid wood stringboard, thickness 20 x 85 mm

Steps: Corrugated, non-slip hardwood steps, depth 9 cm, thickness 17 mm, stair width standard 40 cm, Ceiling opening width < 60 cm: stairs 35 cm wide, Ceiling opening width < 55 cm: stairs 30 cm wide; dovetail joint



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Maintenance

Oil all joints / rotation points and control firm fit of screws annually. Pay attention to humidity at time of installation and when using. A User and Safety Guide is attached to all attic stairs.

DIN EN
14975
DIN
3193

All Wellhöfer attic stairs are manufactured in accordance with DIN-EN and are overload method tested for a load of 150 kg.

Endurance tested: 3.000 opening / closing cycles

This Wellhöfer test equals 30 years of average usage.



Attic stairs GutHolz additional features

Use configurator: www.massbox.de

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Energy conservation

Thermal protection WS3D (as standard)

Material: 48 mm thermodeck insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS3D: Insulation value $U=0.80$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PFB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PFB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

Insulated!
Air-tight!
Climate stable!

Thermal protection WS4D

Material: 96 mm thermodeck double insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS4D: Insulation value $U=0.58$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PFB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PFB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

GutHolz WS4D: Floor-to-ceiling height max. 358 cm with ceiling opening length 150 cm.
From casing height ≥ 39 cm: 1 add. step; from ≥ 71 cm: 2 add. steps.

Double insulated!
Air-tight!
Climate stable!

Thermal protection WSPH Passive House

Passive House
Certificate!

96 mm thermodeck double insulation;
hoka TPV-profile twin-wall double sealing;
PH-connection system for certified execution of the installation gap with double faced adhesive airtight sealing tape for connection to the airtight level, insulation braids above and below and thermal pearls

Certificate: Attic stairs incl. PH-connection system
Passive house component for cold climate

Thermal bridge coefficients:

$\Psi=0.05$ W/(mK) in wooden-beam ceiling

$\Psi=0.07$ W/(mK) in concrete ceiling

WSPH: Insulation value $U_D=0.48$ W/(m²K)

certified, Passivhaus-Institut Darmstadt

incl. PH installation kit (contains all the required materials) and the certified PH-connection system

Dimensions in centimetres	GutHolz WSPH
Ceiling opening dimensions (Length x Width)	min. 106 x 55 max. 160 x 80
Ceiling thickness = casing height	25 - 90
Floor-to-ceiling heights	
Floor-to-ceiling height (min. - max.)	197 - 360

Dimensions are construction side dimensions. Divergent dimensions may apply in combination with further additional features.
Ceiling opening dimensions = order dimensions. For installation space, factory-made WSPH casing dimensions are 4 cm (length/width) smaller. Wide cover profiles as standard.
High casings for thick ceilings are provided with EN compliant additional step/s: casing height ≥ 38 cm: 1 add. step, from ≥ 71 cm: 2 add. steps.
Floor-to-ceiling height, type of stairs and additional features determine the minimum length of the ceiling opening. Use configurator!

Safety

Guardrail

Solid wood; 4 posts: 32 x 32 mm; 2 triangular supports: 85 x 20 mm; 6 profiled strips: 47 x 20 mm;
railing height 90 cm; tested stability 500N (DIN 1055)
incl. all required installation materials

Building regulations!

Handrail GH/SB

Solid wood, 18 x 38 mm, length 74 cm; with very high floor-to-ceiling heights EN compliant 104 cm long version.
Right, left and double sided possible

User safety!

Lock

- Deadlock with round cylinder
- Prepared for profile cylinder

Optics

Ceiling-flush version

Additional lower cover with a smooth visible side;
ring eye and sealing disk in white, coated pull hook,
plastering profiles for on-site plastering
Easy-installation system: detachable hatch door
Solid installation must be ensured on-site.

Fire protection

See fire protection datasheet

Flat roof exit

See flat roof exit datasheet



Attic stairs AluDrei datasheet

Use configurator: www.massbox.de

So far German only. Sorry for the inconvenience.

Dimensions in centimetres

	Standard sizes				Custom-made
Ceiling opening dimensions (Length x Width)	110 x 60	120 x 60	130 x 60	140 x 60	min. 100 x 50
	110 x 70	120 x 70	130 x 70	140 x 70	max. 160 x 100
Ceiling thickness = casing height	25				17 - 90*
Floor-to-ceiling heights and additional features determine the minimum length of the ceiling opening. Use configurator!					
Floor-to-ceiling height (min. - max.)	197 - 360				

Dimensions are construction side dimensions for **attic stairs AluDrei with thermal protection WS3D**. Divergent dimensions may apply in combination with additional features. Ceiling opening dimensions = order dimensions. For installation space, factory-made casing dimensions are 1.5 cm (length/width) smaller.

* High casings for thick ceilings are provided with EN compliant additional step/s, e.g. AD WS3D from casing height ≥ 36 cm: 1 add. step, from ≥ 69 cm: 2 add. steps. For ceiling thicknesses < 25 cm the casing is lowered only at the exit, otherwise keeps the circumferential 25 cm height for safe fixing of the guardrail.

Frame

19 mm multifunction board, foil-coated, white, suited for load-bearing purposes in moist areas (EN 13986-P5)

Attic hatch door (divergent with ceiling-flush version)

19 mm chipboard, melanine resin-coated, white, circumferential ABS furniture edge

hoka twin-wall-sealing

TPV-profile with two degrees of hardening, lift range of sealing 4 mm, resistant against temperature / environmental influences and ageing, circumferential with groove in the attic hatch fold

Cover profiles (divergent with ceiling-flush version)

Plastic, white, rounded special profile 40 x 6 mm, on mitre, pre-mounted adhesive tape, plugin-system with corner joints; for custom-made attic stairs 55 mm wide as an option

Lifting mechanism

Well-engineered lever / spring system balances weight of stairs; even contact pressure for proper closing; ZD latch
Spring balancer dimensioned for long-time function, mechanical parts endurance tested

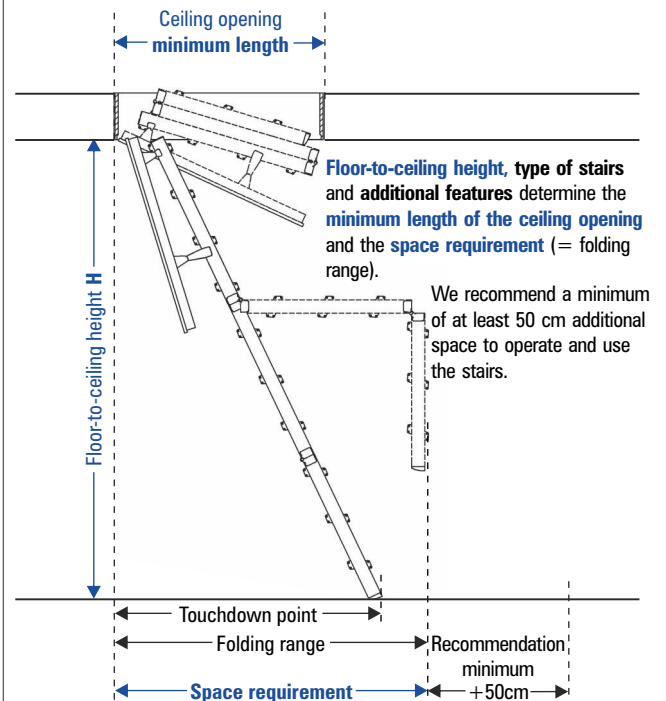
Swivel fitting

For controlling the attic hatch door; not visible when closed, allows cladding up to a thickness of 20 mm and a distributed load of 10 kg/m² (hatch door ≤ 1 m²); request stronger springs for hatch doors > 1 m²

Stairs AluDrei, 3-section folding aluminium stairs

Stringers: Aluminium profile with rounded edges, cover caps and floor protectors, thickness 20 x 71 mm

Steps: Corrugated aluminium steps, depth 11 cm, thickness 38 mm, stair width standard 40 cm,
Ceiling opening width < 60 cm: stairs 35 cm wide,
Ceiling opening width < 55 cm: stairs 30 cm wide;



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Maintenance

Oil all joints / rotation points and control firm fit of screws annually. Pay attention to humidity at time of installation and when using. A User and Safety Guide is attached to all attic stairs.

DIN EN
14975
DIN
3193

All Wellhöfer attic stairs are manufactured in accordance with DIN-EN. Attic stairs **AluDrei** are overload method tested for a load of **200 kg**.

Endurance tested: 3.000 opening / closing cycles

This Wellhöfer test equals 30 years of average usage.



Attic stairs AluDrei additional features

Use configurator: www.massbox.de

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Energy conservation

Thermal protection WS3D (as standard)

Material: 48 mm thermodeck insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS3D: Insulation value $U=0.80$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PfB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PfB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

Insulated!
Air-tight!
Climate stable!

Thermal protection WS4D

Material: 96 mm thermodeck double insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS4D: Insulation value $U=0.58$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PfB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PfB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

From casing height ≥ 37 cm: 1 add. step; from ≥ 75 cm: 2 add. steps.

Double insulated!
Air-tight!
Climate stable!

Thermal protection WSPH Passive House

96 mm thermodeck double insulation;
hoka TPV-profile twin-wall double sealing;
PH-connection system for certified execution of the installation gap with double faced adhesive airtight sealing tape for connection to the airtight level, insulation braids above and below and thermal pearls

Certificate: Attic stairs incl. PH-connection system
Passive house component for cold climate

Thermal bridge coefficients:

$\Psi=0.05$ W/(mK) in wooden-beam ceiling

$\Psi=0.07$ W/(mK) in concrete ceiling

WSPH: Insulation value $U_D=0.48$ W/(m²K)

certified, Passivhaus-Institut Darmstadt

incl. PH installation kit (contains all the required materials) and the certified PH-connection system

Passive House
Certificate!

Dimensions in centimetres	AluDrei WSPH
Ceiling opening dimensions (Length x Width)	min. 106 x 55 max. 160 x 80
Ceiling thickness = casing height	25 - 90
Floor-to-ceiling heights	
Floor-to-ceiling height (min. - max.)	197 - 360

Dimensions are construction side dimensions. Divergent dimensions may apply in combination with further additional features.
Ceiling opening dimensions = order dimensions. For installation space, factory-made WSPH casing dimensions are 4 cm (length/width) smaller. Wide cover profiles as standard.
High casings for thick ceilings are provided with EN compliant additional step/s: casing height ≥ 36 cm: 1 add. step, from ≥ 75 cm: 2 add. steps.
Floor-to-ceiling height, type of stairs and additional features determine the minimum length of the ceiling opening. Use configurator!

Safety

Guardrail

Solid wood; 4 posts: 32 x 32 mm; 2 triangular supports: 85 x 20 mm; 6 profiled strips: 47 x 20 mm;
railing height 90 cm; tested stability 500N (DIN 1055)
incl. all required installation materials

Building
regulations!

AluDrei-handrail

Solid wood, 18 x 38 mm, length 74 cm; with very high floor-to-ceiling heights EN compliant 104 cm long version.
Right, left and double sided possible

User
safety!

Lock

- Deadlock with round cylinder
- Prepared for profile cylinder

Optics

Ceiling-flush version

Additional lower cover with a smooth visible side;
ring eye and sealing disk in white, coated pull hook,
plastering profiles for on-site plastering
Easy-installation system: detachable hatch door I
Solid installation must be ensured on-site.

Fire protection

See fire protection datasheet

Flat roof exit

See flat roof exit datasheet



Attic stairs StahlBlau datasheet

Use configurator: www.massbox.de

So far German only. Sorry for the inconvenience.

Dimensions in centimetres

	Standard sizes				Custom-made
Ceiling opening dimensions (Length x Width)	110 x 60	120 x 60	130 x 60	140 x 60	min. 105 x 60
	110 x 70	120 x 70	130 x 70	140 x 70	max. 160 x 100
Ceiling thickness = casing height	25				17 - 90*
Floor-to-ceiling heights and additional features determine the minimum length of the ceiling opening. Use configurator!					
Floor-to-ceiling height (min. - max.)	237 - 314				

Dimensions are construction side dimensions for **attic stairs StahlBlau with thermal protection WS3D**. Divergent dimensions may apply in combination with additional features. Ceiling opening dimensions = order dimensions. For installation space, factory-made casing dimensions are 1.5 cm (length/width) smaller.

* High casings for thick ceilings are provided with EN compliant additional step/s, e.g. SB WS3D from casing height ≥ 41 cm: 1 add. step, from ≥ 74 cm: 2 add. steps. For ceiling thicknesses < 25 cm the casing is lowered only at the exit, otherwise keeps the circumferential 25 cm height for safe fixing of the guardrail.

Frame

19 mm multifunction board, foil-coated, white, suited for load-bearing purposes in moist areas (EN 13986-P5)

Attic hatch door (divergent with ceiling-flush version)

19 mm chipboard, melanine resin-coated, white, circumferential ABS furniture edge

hoka twin-wall-sealing

TPV-profile with two degrees of hardening, lift range of sealing 4 mm, resistant against temperature / environmental influences and ageing, circumferential with groove in the attic hatch fold

Cover profiles (divergent with ceiling-flush version)

Plastic, white, rounded special profile 40 x 6 mm, on mitre, pre-mounted adhesive tape, plugin-system with corner joints; for custom-made attic stairs 55 mm wide as an option

Lifting mechanism

Well-engineered lever / spring system balances weight of stairs; even contact pressure for proper closing; ZD latch
Spring balancer dimensioned for long-time function, mechanical parts endurance tested

Swivel fitting

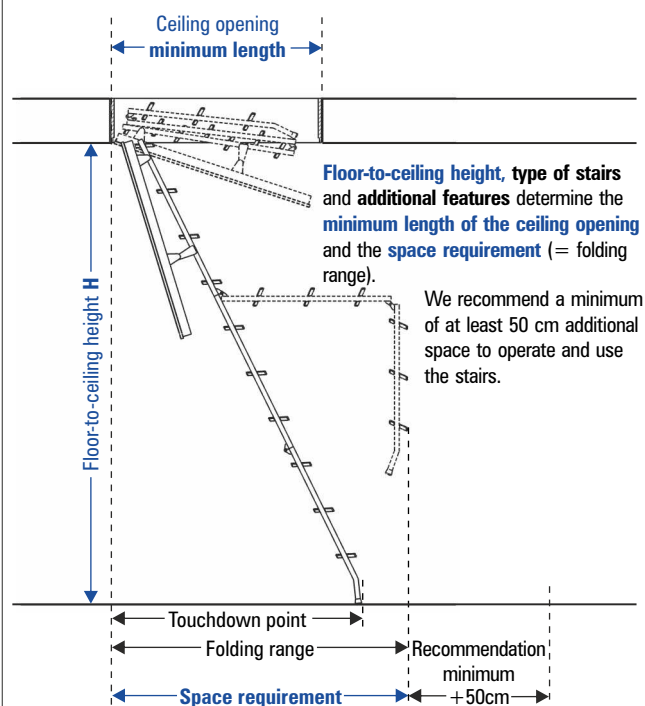
For controlling the attic hatch door; not visible when closed, allows cladding up to a thickness of 20 mm and a distributed load of 10 kg/m² (hatch door ≤ 1 m²); request stronger springs for hatch doors > 1 m²

Stairs StahlBlau, 3-section folding steel stairs

Stringers: Steel tube stringer; \varnothing 27 mm

Steps: Welded steel steps, depth 11 cm, with profiled, embedded PVC step coating; stair width 40 cm

Stringers and steps double lacquered in blue



Use configurator: www.massbox.de

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Maintenance

Oil all joints / rotation points and control firm fit of screws annually. Pay attention to humidity at time of installation and when using. A User and Safety Guide is attached to all attic stairs.

DIN EN
14975
DIN
3193

All Wellhöfer attic stairs are manufactured in accordance with DIN-EN and are overload method tested for a load of 150 kg.

Endurance tested: 3.000 opening / closing cycles

This Wellhöfer test equals 30 years of average usage.



Attic stairs StahlBlau additional features

Use configurator: www.massbox.de

So far German only. Sorry for the inconvenience.

Energy conservation

Thermal protection WS3D (as standard)

Material: 48 mm thermodeck insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS3D: Insulation value $U=0.80$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PfB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PfB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

Insulated!
Air-tight!
Climate stable!

Thermal protection WS4D

Material: 96 mm thermodeck double insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS4D: Insulation value $U=0.58$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PfB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PfB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

StahlBlau WS4D: Floor-to-ceiling height max. 311 cm.
From casing height ≥ 45 cm: 1 add. step; from ≥ 78 cm: 2 add. steps.

Double insulated!
Air-tight!
Climate stable!

Thermal protection WSPH Passive House

96 mm thermodeck double insulation;
hoka TPV-profile twin-wall double sealing;
PH-connection system for certified execution of the installation gap with double faced adhesive airtight sealing tape for connection to the airtight level, insulation braids above and below and thermal pearls

Certificate: Attic stairs incl. PH-connection system
Passive house component for cold climate
Thermal bridge coefficients:
 $\Psi=0.05$ W/(mK) in wooden-beam ceiling
 $\Psi=0.07$ W/(mK) in concrete ceiling
WSPH: Insulation value $U_D=0.48$ W/(m²K)
certified, Passivhaus-Institut Darmstadt

incl. PH installation kit (contains all the required materials) and the certified PH-connection system

Passive House
Certificate!

Dimensions in centimetres	StahlBlau WSPH
Ceiling opening dimensions (Length x Width)	min. 110 x 65 max. 160 x 80
Ceiling thickness = casing height	25 - 90
Floor-to-ceiling heights	
Floor-to-ceiling height (min. - max.)	237 - 314

Dimensions are construction side dimensions. Divergent dimensions may apply in combination with further additional features.
Ceiling opening dimensions = order dimensions. For installation space, factory-made WSPH casing dimensions are 4 cm (length/width) smaller. Wide cover profiles as standard.
High casings for thick ceilings are provided with EN compliant additional step/s: casing height ≥ 42 cm: 1 add. step, from ≥ 75 cm: 2 add. steps.
Floor-to-ceiling height, type of stairs and additional features determine the minimum length of the ceiling opening. Use configurator!

Safety

Guardrail

Solid wood; 4 posts: 32 x 32 mm; 2 triangular supports: 85 x 20 mm; 6 profiled strips: 47 x 20 mm;
railing height 90 cm; tested stability 500N (DIN 1055)
incl. all required installation materials

Building regulations!

Handrail GH/SB

Solid wood, 18 x 38 mm, length 74 cm; with very high floor-to-ceiling heights EN compliant 104 cm long version.
Right, left and double sided possible

User safety!

Lock

- Deadlock with round cylinder
- Prepared for profile cylinder

Optics

Ceiling-flush version

Additional lower cover with a smooth visible side;
ring eye and sealing disk in white, coated pull hook,
plastering profiles for on-site plastering
Easy-installation system: detachable hatch door
Solid installation must be ensured on-site.

Fire protection

See fire protection datasheet

Flat roof exit

See flat roof exit datasheet



Attic stairs Liliput datasheet

Use configurator: www.massbox.de

So far German only. Sorry for the inconvenience.

Dimensions in centimetres

	Standard sizes	Custom-made
Ceiling opening dimensions (Length x Width)	90 x 60 100 x 60 90 x 70 100 x 70	min. 75* x 50 max. 160 x 100
Ceiling thickness = casing height	25	17 - 90**
Floor-to-ceiling heights and additional features determine the minimum length of the ceiling opening. Use configurator!		
Floor-to-ceiling height (min. - max.)	197 - 410***	

Dimensions are construction side dimensions for **attic stairs Liliput with thermal protection WS3D**. Divergent dimensions may apply in combination with additional features. Ceiling opening dimensions = order dimensions. For installation space, factory-made casing dimensions are 1.5 cm (length/width) smaller.

* We recommend a minimum length of at least 90 cm for the ceiling opening, otherwise the clearance will be very narrow!

** High casings for thick ceilings are provided with EN compliant additional step/s, e.g. LL WS3D from casing height ≥ 45 cm: 1 add. step, from ≥ 78 cm: 2 add. steps.

For ceiling thicknesses < 25 cm the casing is lowered only at the exit, otherwise keeps the circumferential 25 cm height for safe fixing of the guardrail.

*** Floor to ceiling heights 320 cm and higher always require the comfort operation for the stair section.

Frame

19 mm multifunction board, foil-coated, white, suited for load-bearing purposes in moist areas (EN 13986-P5)

Attic hatch door (divergent with ceiling-flush version)

19 mm chipboard, melanine resin-coated, white, circumferential ABS furniture edge

hoka twin-wall-sealing

TPV-profile with two degrees of hardening, lift range of sealing 4 mm, resistant against temperature / environmental influences and ageing, circumferential with groove in the attic hatch fold

Cover profiles (divergent with ceiling-flush version)

Plastic, white, rounded special profile 40 x 6 mm, on mitre, pre-mounted adhesive tape, plugin-system with corner joints; for custom-made attic stairs 55 mm wide as an option

Lifting mechanism

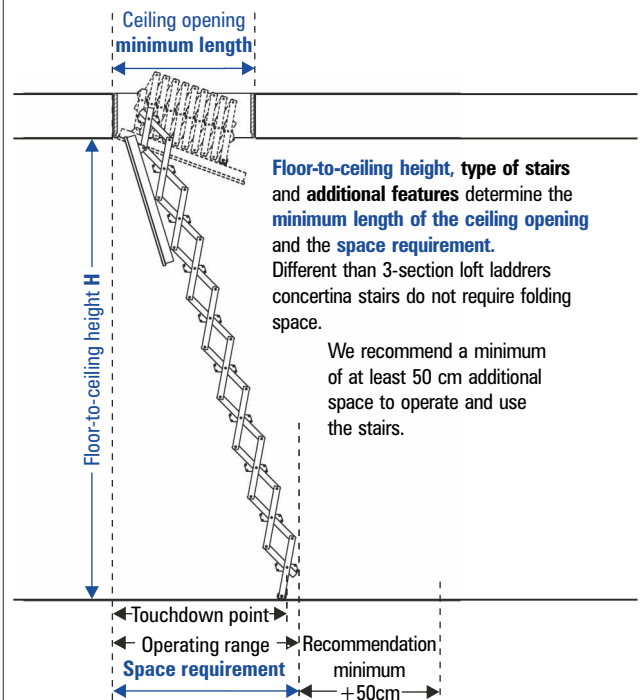
Well-engineered lever / spring system balances weight of stairs; even contact pressure for proper closing; ZD latch Spring balancer dimensioned for long-time function, mechanical parts endurance tested

Swivel fitting

For controlling the attic hatch door; not visible when closed, allows cladding up to a thickness of 20 mm and a distributed load of 10 kg/m² (hatch door ≤ 1 m²); request stronger springs for hatch doors > 1 m²

Liliput, concertina loft ladder

Stringers: Aluminium profile, thickness 10 x 34 mm
Steps: Profiled aluminium steps, depth 11 cm, thickness 38 mm, stair width standard 40 cm, Ceiling opening width < 60 cm: stairs 35 cm wide, Ceiling opening width < 55 cm: stairs 30 cm wide



Use configurator: www.massbox.de

So far German only. Sorry for the inconvenience.

Maintenance

Oil all joints / rotation points and control firm fit of screws annually. Pay attention to humidity at time of installation and when using. A User and Safety Guide is attached to all attic stairs.

DIN EN
14975
DIN
3193

All Wellhöfer attic stairs are manufactured in accordance with DIN-EN and are overload method tested for a load of 150 kg.

Endurance tested: 3.000 opening / closing cycles

This Wellhöfer test equals 30 years of average usage.



Attic stairs Liliput additional features

Use configurator: www.massbox.de

So far German only. Sorry for the inconvenience.

Energy conservation

Thermal protection WS3D (as standard)

Material: 48 mm thermodeck insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS3D: Insulation value $U=0.80$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PfB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PfB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

Insulated!
Air-tight!
Climate stable!

Thermal protection WS4D

Material: 96 mm thermodeck double insulation
Ceiling connection system:
double-sided adhesive sealing tape and insulation braid

Tests: Attic stairs and connection system component tested:
WS4D: Insulation value $U=0.58$ W/(m²K)
tested, DIN EN ISO 12567-1:2010-12, IBP Fraunhofer Stuttgart
Airtightness Class 4 / sealing value $a=0.01$ m³/hm(daPa^{2/3})
tested, i. acc. DIN EN 12207 / DIN EN 1026:2016-09, PfB
Climate stability Class 3 climate category c/d
tested, i. acc. DIN EN 12219:2000-06, PfB

incl. WS installation kit (contains all the required materials) and the certified connection system for **airtight installation**

From casing height ≥ 50 cm: 1 add. step; from ≥ 83 cm: 2 add. steps.

Double insulated!
Air-tight!
Climate stable!

Thermal protection WSPH Passive House

96 mm thermodeck double insulation;
hoka TPV-profile twin-wall double sealing;
PH-connection system for certified execution of the installation gap with double faced adhesive airtight sealing tape for connection to the airtight level, insulation braids above and below and thermal pearls

Certificate: Attic stairs incl. PH-connection system
Passive house component for cold climate
Thermal bridge coefficients:
 $\Psi=0.05$ W/(mK) in wooden-beam ceiling
 $\Psi=0.07$ W/(mK) in concrete ceiling
WSPH: Insulation value $U_p=0.48$ W/(m²K)
certified, Passivhaus-Institut Darmstadt

incl. PH installation kit (contains all the required materials) and the certified PH-connection system

Passive House
Certificate!

Dimensions in centimetres	Liliput WSPH
Ceiling opening dimensions (Length x Width)	min. 90 x 55 max. 160 x 80
Ceiling thickness = casing height	25 - 90
Floor-to-ceiling heights	
Floor-to-ceiling height (min. - max.)	190 - 319

Dimensions are construction side dimensions. Divergent dimensions may apply in combination with further additional features.
Ceiling opening dimensions = order dimensions. For installation space, factory-made WSPH casing dimensions are 4 cm (length/width) smaller. Wide cover profiles as standard.
High casings for thick ceilings are provided with EN compliant additional step/s: casing height ≥ 50 cm: 1 add. step, from ≥ 83 cm: 2 add. steps.
Floor-to-ceiling height, type of stairs and additional features determine the minimum length of the ceiling opening. Use configurator!

Safety

Guardrail

Solid wood; 4 posts: 32 x 32 mm; 2 triangular supports: 85 x 20 mm; 6 profiled strips: 47 x 20 mm; railing height 90 cm; tested stability 500N (DIN 1055)
incl. all required installation materials

Building regulations!

Telescope Handrail

Extendable aluminium round tubes with protective caps, surface anodised, \varnothing 30/25 mm, length according to extension up to 132 cm. Possible on right, left and both sides.
Up to ceiling thickness ≤ 45 cm or from ceiling opening length ≥ 113 cm

User safety!

Lock

- Deadlock with round cylinder
- Prepared for profile cylinder

Optics & comfort

Ceiling-flush version

Additional lower cover with a smooth visible side; ring eye and sealing disk in white, coated pull hook, plastering profiles for on-site plastering
Easy-installation system: detachable hatch door
Solid installation must be ensured on-site.

Comfort operation for Liliput stair section

Rail-spring-fixing-system for easier operation of the concertina stair section and increased stability.
From ceiling opening length ≥ 85 cm optional possible, from floor-to-ceiling height ≥ 320 cm always required.

Fire protection / Flat roof exit

See separate datasheets

