

# Product Description Attic Stairs

Changes of technical details, due to continuous development, might happen without notice. Current status: [www.wellhoefer.de](http://www.wellhoefer.de)

## ■ Attic hatch

Casing dimensions (length/width) are 1.5 cm smaller than the ceiling opening.

### ■ Standard Sizes (dimensions of the ceiling opening in cm)

	StahlBlau	GutHolz	Liliput
Length	110, 120, 130, 140		90, 100
Width	60, 70		
Casing Height	25		

### ■ Custom-made (dimensions of the ceiling opening in cm)

	StahlBlau	GutHolz	Liliput
Length	105 - 160	100 - 160	70 - 160
Width	60 - 100	50 - 100	
Casing Height	17 - 90		
1 additional step	≥41	≥34	≥45
2 additional steps	≥74	≥67	≥78

Casing Height <25 cm: front notched

Length >140 or width >80: attic hatch door oversize

### ■ Frame

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

### ■ Attic hatch door

16 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

Plastic, white, special profile 40x6 mm, on mitre, pre-mounted adhesive tape, plug-in system with corner joints

### ■ 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/m<sup>2</sup> (hatch door ≤1 m<sup>2</sup>) possible; request stronger springs for hatch door >1 m<sup>2</sup>

### ■ Low-Emission

Test Results: **HCHO** (formaldehyde) **1.5** µg/m<sup>3</sup>

**TVOC** (sum total of volatile organic compounds) **35** µg/m<sup>3</sup>  
tested, DIN EN ISO 16000, TÜV Rheinland LGA Products

Clearly bellow the target values for harmlessness as specified by the Sentinel Haus Institut

**Healthy housing!**

**All attic stairs including all required installation materials!**

## ■ Additional features (for all types of stairs)

Thermal protection WS3D as standard.

### ■ Thermal protection WS3D / WS4D

Material: **WS4D**: 96 mm polyethylene-thermodeck

**WS3D**: 48 mm polyethylene-thermodeck

Ceiling connection system for the installation gap: double-sided adhesive sealing tape and insulation braid

Test Results: Attic stairs and connection system component tested:

**WS4D: Insulation value U=0.58** W/(m<sup>2</sup>K)

tested, DIN EN ISO 12567-1: 2010-12, IBP Fraunhofer Stuttgart

**WS3D: Insulation value U=0.80** W/(m<sup>2</sup>K)

tested, DIN EN ISO 12567-1: 2010-12, IBP Fraunhofer Stuttgart

**Air-tightness Class 4 / sealing value a=0.01** m<sup>3</sup>/hm(daPa<sup>2/3</sup>)

tested, in accordance with DIN EN 12207 / DIN EN 1026: 2016-09, PFB

**Climate-stability Class 3** climate category c/d

tested, based on DIN EN 12219: 2000-06, PFB Prüf. f. Bauelemente

incl. WS installation kit (contains all the required materials)

and the certified sealing system for **air-tight installation**

WS4D StahlBlau: Ceiling opening length min. 110 cm; ceiling height max. 311 cm.

WS4D GutHolz: Ceiling height max. 358 cm at ceiling opening length 150 cm.

WS4D Liliput: Ceiling opening length min. 77 cm.

**Insulated!  
Air-tight!  
Climate-stable!**

### ■ Thermal protection WSPH

Certified passive house component for cold climate.

All details on the Passive House Attic Stairs brochure.

**Passive House Certificate!**

### ■ Guardrail

Solid wood; 4 posts: 33x33 mm; 2 triangular supports: 85x20 mm; 6 profiled strips: 47x20 mm; railing height 90 cm

Test: Stability 500N (DIN 1055)

incl. all required installation materials

**Building regulations!**

### ■ Handrail

Wood: 18x38 mm; for StahlBlau/GutHolz

Telescope: 30 mm; only for Liliput concertina loft ladder

up to ceiling thickness ≤43 cm or ceiling opening length ≥100 cm

**User safety!**

### ■ Lock

- Deadlock with round cylinder

- with profile cylinder: only for attic stairs with FS30 2S / FS90 2S

### ■ Flat roof exit

All details on the Flat Roof Exit brochure.

### ■ Maintenance

Lubricate 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.

**Stairs and additional feature fire protection: Please turn over.**

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## ■ Additional feature fire protection FS (for all types of 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) EI,30 (ÖNORM B 3860)

Frame: 18 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 (see front)  
Thermal protection WS3D as standard, WS4D/WSPH optionally

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

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 (see front)  
Thermal protection WS3D as standard

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

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 (see front)  
Thermal protection WS3D as standard

GutHolz/StahlBlau standard sizes: 120x60, 120/130/140x70, casing height 25 cm. Liliput always custom-made. Dimensions (min.-max.) of the ceiling opening in cm:

	FS30	StahlBlau	GutHolz	Liliput
Length	110 - 160	104 - 160	80 - 160	
Width	60 - 80		50 - 80	
Casing Height	17 - 90			
1 add. step	≥42	≥35	≥47	
2 add. steps	≥75	≥68	≥80	

Oversize: Length > 140

	FS30 2S	StahlBlau	GutHolz	Liliput
Length	110 - 140	104 - 140	80 - 140	
Width	60 - 80		50 - 80	
Casing Height	20 - 60			
1 add. step	≥42	≥35	≥47	

Casing height may not be greater than the ceiling thickness.

	FS90 2S	StahlBlau	GutHolz	Liliput
Length	110 - 140	105 - 140	85 - 140	
Width	65 - 70		55 - 70	
Casing Height	20 - 50			
1 add. step	≥44	≥38	≥50	

Casing height must correspond to the ceiling thickness!  
From ceiling opening width < 65 cm: stairs 30 cm wide.  
Ceiling to floor height: max. 360 cm (Liliput).

## ■ Stairs

### ■ GutHolz, 3-section folding wooden stairs

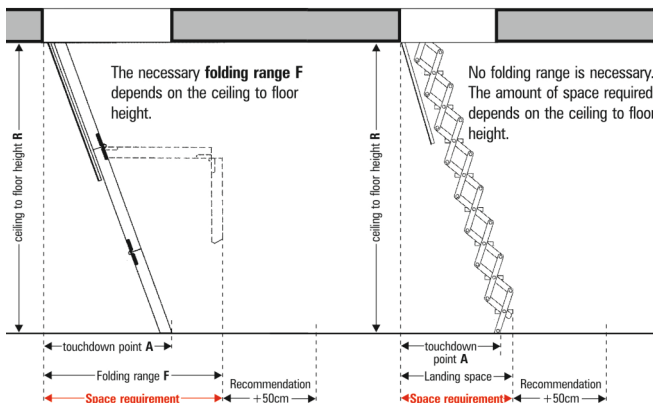
**Stringers:** Solid wood stringboard, thickness 20 x 85 mm  
**Steps:** Corrugated, non-slip hardwood steps, depth 9 cm, thickness 17 mm, stair width standard 40 cm, Ceiling opening width < 60 cm: stairs 35 cm wide, Ceiling opening width < 55 cm: stairs 30 cm wide; dovetail joint  
**Ceiling height:** from 197 to 360 cm ceiling to floor height; fine adjustment range per stair package +/- 5 cm; Ceiling to floor height determines minimum length of ceiling opening  
**Space requirement:** Folding range F (147 - 217 cm) necessary; Swivel range not necessary

### ■ 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 powder-coated in blue**  
**Ceiling height:** from 237 to 314 cm ceiling to floor height; fine adjustment range per stair package +/- 5 cm; Ceiling to floor height determines minimum length of ceiling opening  
**Space requirement:** Folding range F (153 - 194 cm) necessary; Swivel range not necessary

### ■ Liliput, concertina loft ladder

**Stringers:** Aluminium profile, thickness 10 x 34 mm  
**Steps:** Profiled aluminium steps, depth 11 cm, thickness 26 mm, stair width standard 40 cm, Ceiling opening width < 60 cm: stairs 35 cm wide, Ceiling opening width < 55 cm: stairs 30 cm wide  
**Ceiling height:** from 190 to 360 cm ceiling to floor height; Ceiling to floor height determines minimum length of ceiling opening  
**Space requirement:** 90 - 145 cm necessary depending on ceiling to floor height; also suited for small ceiling openings



The specific space requirement (= folding range of the 3-section attic stairs and/or touchdown point with concertina loft ladders) depends on the ceiling to floor height. We recommend to add a further 50 cm of space for a more comfortable use of the stairs.

**All attic stairs are manufactured in accordance with DIN and withstand mechanical stress of a maximum of 150 kg.**