

**SPAX**<sup>®</sup>



# SPAX Outdoor

for wooden decking

**MADE IN**  
  
**GERMANY**

# 10 steps -



## 1. WHY SLOPE?

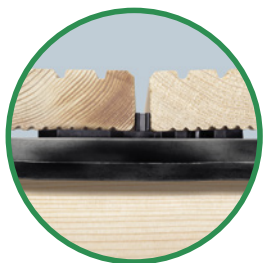
Decking is exposed to the weather and it is therefore crucial to minimise the risk of slipping. Through correct sloping, rainwater drains off the decking properly and the durability of the wood is increased. An inclination of **2%** is sufficient in most cases.



## 2. WHY STAINLESS STEEL A2/A4?

Stainless steel is a must for wooden decking. Which type of stainless steel is best suited depends on the type of wood and application area, since each has specific corrosion resistance against aggressive chemicals and weathering. Chemicals can also include natural **tannic acid**, which

occurs in woods such as oak, yellow balau and Garapa. Wood containing tannins needs at least stainless steel A2. For applications in coastal areas, we recommend the A4 stainless steel version. Stainless steel is characterised by a high chrome content. This forms a protective layer on the surface of the material.



## 3. WHY VENTILATION FROM BELOW?

SPAX Air and Stick *Pro* reduce the formation of **water stagnation** between decking board and substructure. This structural improvement results in a significant increase in the durability of the wooden decking and thus upgrades its use class from 3.2 to the higher class 3.1.

## to perfect decking

### 4. AND WHAT ABOUT THE SUBSTRATE?

If at all possible, it is best to position decking so that it is not exposed to the prevailing elements or erected in a particularly damp or shady spot. Particular attention should be paid to **the areas of contact between the wooden boards and the** substrate.



To make sure that the substructure does not come into direct contact with damp soil or stones, it is mounted on evenly spaced concrete slabs. To improve ventilation from below, at least one SPAX Pad should be inserted between the substructure and concrete slabs. Or, even better, use SPAX Lift adjustable feet for easier levelling of the decking surface.

### 5. HOW ARE BOARDS FASTENED?

The SPAX decking screw with T-STAR *plus* drive enables completely flush fastening. The result is an impeccable visual appearance and low splitting effect when sinking due to the cylindrical head.

The fixing thread ensures that the wood covering is permanently and firmly attached to the substructure. Creaking and rattling are significantly reduced.

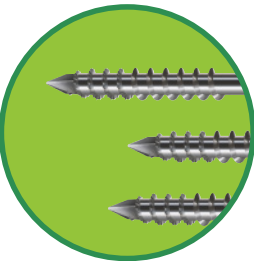




## 6. WHY PRE-DRILL?

Especially with hardwoods and tropical woods, pre-drilling is always a must. Pre-drilling and countersinking enable a clean, uniform finish.

The **pre-drilling rule** also applies to Thermowood since its material behaves like hardwood. However, to achieve a perfect screw pattern, we also recommend pre-drilling soft woods.



## 7. WHICH SCREW LENGTH IS RIGHT?

In practice, the following screw lengths have proven to be most effective for decking:

**Board thickness up to 21 mm =**  
60 mm screw length (wood on wood)

**Board thickness 22-28 mm =**  
70 mm screw length (wood on wood)



## 8. HOW MANY SCREWS DO YOU NEED?

The Decking Portal at **spax.com** offers a decking configurator to help you determine the required amount of screws, boards and the substructure dimensions in just a few clicks.

Everything is tailored to the dimensions of your planned decking area and the materials selected.

# 10 steps –



## 9. WHAT ABOUT RAILING HEIGHT?

The most important consideration here is safety. Railing height specifications may vary locally. From a decking height of 60 cm, railing is a requirement for building-authority approval.

Railing height is always measured from the base of the decking. A railing height of **1.2 m** is usually sufficient.



## 10. WHERE CAN I FIND MORE INFORMATION?

Visit **spax.com** and access our Decking Portal for **a wide range of valuable tips and know-how**. The sections Wood science and Top tips for users offer easy-to-follow explanations and illustrations.

You can also find out about the most common types of wood used in decking construction. Or why not gain inspiration from our reference projects? And to round off our comprehensive information service, we have also included some video tutorials on the key points of decking construction.

to perfect decking

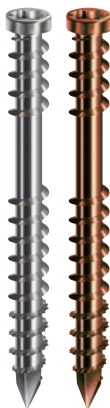
## SPAX Decking screw



The screw for wooden decking  
in stainless steel A2 and A2 antique.

### THE SPAX ADVANTAGES

- T-STAR *plus* T25
- Cylindrical head
- Fixing thread
- Typical SPAX ground serrations
- *CUT point*
- Stainless steel A2 and A2 antique
- Anti-friction coating



| Dimensions<br>[mm] | SPAX number | EAN code |
|--------------------|-------------|----------|
|--------------------|-------------|----------|

|          |               |               |                               |
|----------|---------------|---------------|-------------------------------|
| 5.0 x 50 | 0537000500505 | 4003530164866 | Standard packaging            |
| 5.0 x 60 | 0537000500605 | 4003530184383 | Standard packaging            |
| 5.0 x 70 | 0537000500705 | 4003530266881 | Standard packaging            |
| 5.0 x 40 | 0537000500403 | 4003530165573 | Small packaging               |
| 5.0 x 50 | 0537000500503 | 4003530159589 | Small packaging               |
| 5.0 x 60 | 0537000500603 | 4003530159596 | Small packaging               |
| 5.0 x 70 | 0537000500703 | 4003530159602 | Small packaging               |
| 5.0 x 80 | 0537000500803 | 4003530159619 | Small packaging               |
| 5.0 x 50 | 0537900500503 | 4003530181948 | A2 antique small packaging    |
| 5.0 x 60 | 0537900500603 | 4003530182150 | A2 antique small packaging    |
| 5.0 x 50 | 0537900500505 | 4003530182679 | A2 antique standard packaging |
| 5.0 x 60 | 0537900500605 | 4003530280443 | A2 antique standard packaging |

**Recommendation:** Use SPAX Step Drill 4 height-adjustable drill.

## SPAX boardwalk screw



The screw for decking, boardwalks and footbridges  
in stainless steel A4.

### THE SPAX ADVANTAGES

- T-STAR *plus* T40
- Cylindrical head
- Fixing thread
- Typical SPAX ground serrations
- *CUT point*
- Stainless steel A4
- Anti-friction coating



| Dimensions<br>[mm] | SPAX number | EAN code |
|--------------------|-------------|----------|
|--------------------|-------------|----------|

|           |               |               |
|-----------|---------------|---------------|
| 8.0 x 120 | 0538000801205 | 4003530241024 |
|-----------|---------------|---------------|

**Recommendation:** Use SPAX Step Drill 6 height-adjustable drill.

## SPAX Decking screw



**A4**  
1.4578  
AISI 316



The screw for wooden decking  
**in stainless steel A4.**

### THE SPAX ADVANTAGES

- T-STAR *plus* T25
- Cylindrical head
- Fixing thread
- Typical SPAX ground serrations
- *CUT point*
- Stainless steel A4
- Anti-friction coating

| Dimensions<br>[mm] | SPAX number   | EAN code      |
|--------------------|---------------|---------------|
| 6.0 x 40           | 0538000600403 | 4003530247026 |
| 6.0 x 50           | 0538000600503 | 4003530246678 |
| 6.0 x 60           | 0538000600603 | 4003530246708 |
| 6.0 x 70           | 0538000600703 | 4003530247033 |
| 6.0 x 80           | 0538000600803 | 4003530247040 |
| 6.0 x 100          | 0538000601003 | 4003530247064 |



**Recommendation:** Use SPAX Step Drill 4 height-adjustable drill.

## SPAX Bold



**A2**  
1.4567  
AISI 304



The screw for wooden decking with visible connection  
**in stainless steel A2.**

### THE SPAX ADVANTAGES

- T-STAR *plus* T20
- Decorative head
- Fixing thread
- Typical SPAX ground serrations
- *4CUT*
- Stainless steel A2
- Anti-friction coating

| Dimensions<br>[mm] | SPAX number   | EAN code      |
|--------------------|---------------|---------------|
| 5.0 x 56           | 0567000500563 | 4003530243240 |



**Recommendation:** Use SPAX Step Drill 4 height-adjustable drill.

The screw for wooden decking on aluminium  
**in stainless steel A2.**

## THE SPAX ADVANTAGES

- T-STAR *plus* T25
- Cylindrical head
- Drill point
- Stainless steel A2
- Anti-friction coating



| Dimensions<br>[mm] | SPAX number   | EAN code      |
|--------------------|---------------|---------------|
| 5.0 x 44           | 0557000500443 | 4003530244001 |
| 5.0 x 48           | 0557000500483 | 4003530243998 |
| 5.0 x 51           | 0557000500513 | 4003530243981 |

### Recommendation for use with wood on aluminium:

Use SPAX Air between cover board and aluminium profile. Use SPAX Step Drill 4 in combination with SPAX Drill 5.2. Use SPAX Drive STOP – adjustable depth gauge.

**Warning: Only pre-drill the wood, not the aluminium!**

### Not suitable for:

Timbers with heavily interlocked grain (Brazilian teak, massaranduba, IPE boards > 21 x 120 mm etc.)

### Technical information:

Length: 44 mm for max. 20 mm decking boards

Length: 48 mm for max. 24 mm decking boards

3.0 mm-thick aluminium substructure for softwood

4.0 mm-thick aluminium substructure for hardwood

### Recommendation for wood on wood:

Use SPAX Air between cover board and wooden substructure.

Use SPAX Step Drill 4 height-adjustable drill.

Use SPAX Drive STOP – adjustable depth gauge.



## SPAX accessories for a clean screw pattern

### SPAX Drill 2 Step

with 2 drill steps of 4.1 mm and 6.5 mm diameter

for SPAX decking screws

PU: 5 cans with one drill each

SPAX number: 4009409873002

EAN: 4003530189388



### SPAX Drill 5.2

Wood drill with 4.0mm diameter shank and 5.2 mm diameter shank, spindle length 19mm

Recommendation:

Use in combination with a  
SPAX Step Drill 4 in the application  
wooden deck on aluminium

For pre-drilling of the wooden deck only

PU: 5 cans with one drill each

SPAX number: 5009409875002

EAN: 4003530248139



### SPAX Step Drill 4

1 x wood drill 4 mm diameter,  
1 x countersink 6.5 mm diameter,  
spindle length 60 mm, height-adjustable

for SPAX decking screws

PU: 1 set in can, individually packaged

SPAX number: 5000009186049

EAN: 4003530241581



### SPAX Step Drill 6

1 x wood drill 6 mm diameter,  
1 x countersink 9.5 mm diameter,  
spindle length 100 mm, height-adjustable

for SPAX boardwalk screw

PU: 1 set in can, individually packaged

SPAX number: 5000009186069

EAN: 4003530241598



## The accessories for optimal force transmission.

### SPAX-BITBOX T-STAR *plus*

Bit holder, Length: 60 mm and  
6 SPAX Bits T-STAR plus T10-T40,  
Length: 25 mm

PU: 5 SPAX-BITBOX in transport box  
SPAX number: 4000007899019  
EAN: 4003530271014



### SPAX Bits

Clean bit positioning and better insertion, e.g. when working overhead. SPAX screwdriver inserts for manual screwdrivers, electric and cordless screwdrivers, drills and air screwdrivers impress through their precise fit, optimal hardness and torque transmission values and long service life.

### SPAX Bits

#### T-STAR *plus* T25, length 25 mm

Contents sorted by type:  
10 cans with 5 pieces or 50 pieces per  
SPAX CUT CASE with 25 mm length



PU: 10 cans in SPAX CUT CASE = 50 Bits, 5 Bits per can  
SPAX number: 5000009192259  
EAN: 4003530239663

### SPAX Bits

#### T-STAR *plus* T25, length 50 mm

Contents sorted by type:  
10 cans with 5 pieces or 50 pieces per  
SPAX CUT CASE with 50 mm length



PU: 10 cans in SPAX CUT CASE = 50 Bits, 5 Bits per can  
SPAX number: 5000009193259  
EAN: 4003530192883

## The accessories for structural wood protection.

### SPAX Pads

Protect the wooden substructure from soil moisture

Dimensions: 100 x 100 x 8 mm

PU: 20 bundled pieces in foil

SPAX number: 4001001000089

EAN: 4003530194108



### SPAX Tape

The tape protects the wooden substructure from rain

Low-density polyethylene tape, self-adhesive, leaves no residue when removed, UV resistant, shock-proof

Material thickness: 0.5 mm

Dimensions: 30 m x 87 mm on roll

PU: 5 rolls in master carton

SPAX number: 4000009186419

EAN: 4003530248566



## The height-adjustable installation system

### SPAX Free Lift

Suitable for metal supports with a width of 91 mm

Height continuously adjustable up to 30 mm

For substructure widths of 20–75 mm

For the simple adjustment of height differences during decking construction

The load-bearing capacity of SPAX Free Lift is 250 kg. The load-bearing capacity does not reduce when using the SPAX Lift Extension in combination with SPAX Free Lift.

PU: 15 bags (3 pieces each) in outer box

SPAX number: 4009400009109

EAN: 4003530241529



### SPAX Lift 3.5/5

For decking support widths of 20–75 mm

Height continuously adjustable between 35–50 mm

Load capacity of up to 800 kg

When using the SPAX Lift Extension, the load-bearing capacity of SPAX Lift 3.5/5 is reduced from 800 kg to 400 kg.

For approx. 6 m<sup>2</sup>

PU: 10 bags (3 pieces each) in outer box

SPAX number: 4009435305009

EAN: 4003530242199



## The height-adjustable installation system

### SPAX Lift 5/9

For decking support widths of 20–75 mm

Height continuously adjustable between 50–80 mm

Load capacity of up to 800 kg

When using the SPAX Lift Extension, the load-bearing capacity of SPAX Lift 5/9 is reduced from 800 kg to 400 kg.

For approx. 5 m<sup>2</sup>

PU: 8 bags (3 pieces each) in outer box

SPAX number: 4009459558509

EAN: 4003530242205

PU: 50 pieces in big bag

SPAX number: 4009459558500

EAN: 4003530247590



### SPAX Extension 30 for SPAX Free Lift, Lift 3.5/5 and Lift 5/9

Easy-insert attachment, height 30 mm

Enables adjustment even to larger height differences (e.g. on a slope)

Maximum adjustment height:

8 pieces SPAX Extension with 30 mm height

PU: 18 bags (8 pieces each) in outer box

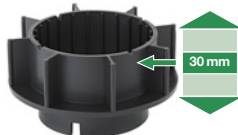
SPAX number: 4009400003009

EAN: 4003530268182

PU: 50 pieces in big bag

SPAX number: 4009400003019

EAN: 4003530268205



### SPAX Extension 100 for SPAX Free Lift, Lift 3.5/5 and Lift 5/9

Easy-insert attachment, height 100 mm

Enables adjustment even to larger height differences (e.g. on a slope)

Maximum adjustment height:

8 pieces SPAX Extension with 100 mm height

PU: 100 pieces in big bag

SPAX number: 4009400010000

EAN: 4003530247637



## The SPAX Air spacers in 4.5 mm and 6.5 mm

### SPAX Air

For decking board spacing of 4.5 mm and 6.5 mm and better decking ventilation.

Damp is the enemy of builders. Waterlogging makes wood the first casualty of rot.

With SPAX Air, there is now a simple way of separating boards from the substructure, which ensures better ventilation.

At the same time, SPAX Air ensures the correct and regular spacing between the boards and makes installation significantly easier.

40 pieces in handle box,

PU: 3 handle boxes

Distance 4.5 mm:

SPAX number: 4009422544009

EAN: 4003530241338

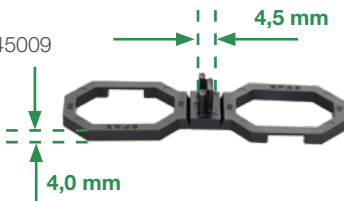
100 pieces in handle box,

PU: 1 handle box

Distance 4.5 mm:

SPAX number: 4009422545009

EAN: 4003530241239



40 pieces in handle box,

PU: 3 handle boxes

Distance 6.5 mm:

SPAX number: 4009422564009

EAN: 4003530241345

100 pieces in handle box,

PU: 1 handle box

Distance 6.5 mm:

SPAX number: 4009422565009

EAN: 4003530241246



## The accessories for optimal force transmission.

### SPAX Drive STOP

with adjustable depth gauge 1/4" Bit frame holder with retaining ring

To change the Bit, remove the depth stop to enable easier access to the Bit. If the Bit is stuck in the Bit holder, use a pair of pliers to remove it.

1 SPAX BIT T-STAR *plus* T25

2 spare felt rings

PU: 1 piece in transparent box

SPAX number: 5000009186919

EAN: 4003530189036



## The accessories for aligning warped decking boards.

### SPAX Kaiman pro

SPAX wrench for the simple alignment of warped cover boards

SPAX positioning guide (liner)

4 SPAX Spacer for 4 joint widths:  
4, 5, 6, 7 mm

PU: 1 set in case

SPAX number: 5009409872009

EAN: 4003530241093



### SPAX Spacer

Joint gauges for 4 joint widths: 4, 5, 6, 7 mm

Please check the individual specifications from timber suppliers

12 pieces in handle box

PU: 3 x 12 pieces in outer box

SPAX number: 5000009196209

EAN: 4003530191640



## The non-visible connection with SPAX Stick *pro*

### SPAX Stick *pro*

The non-visible SPAX Stick *pro* ensures an immaculate appearance.

The high mechanical strength of the stick gives decking boards great stability and load-bearing capacity on both wood and aluminium substructures. Thanks to the large contact surface of the SPAX Stick *pro*, it's practically impossible for the substructure to become crushed.

The fastening screw in the substructure can be removed even after installation. With aluminium substructures: 3 mm thickness for softwood decking boards, 4 mm thickness for hardwood decking boards. The decking board must be at least 20 mm thick at the fixing point. The board width for tropical woods <130 mm, thickness of decking board max. 24 mm. Substructure spacing: max. 400 mm. The end of the decking board should overlap max. 40 mm at the end of the substructure.

Content:

SPAX cylindrical head screws stainless steel A2

black 4.5 x 28 mm

SPAX cylindrical head screws WIROX 4.5 x 22 mm

1 Bit SPAX T-STAR *plus* T20 length 50 mm

SPAX Stick *pro* 1 m<sup>2</sup>

PU: 3 handle boxes

SPAX number: 4009422556629

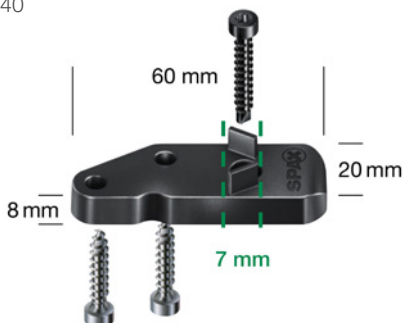
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SPAX Stick *pro* 3 m<sup>2</sup>

PU: 1 handle box

SPAX number: 4009422556639

EAN: 4003530252440



**Not suitable** for timbers with heavily interlocked grain (Brazilian teak, massaranduba, etc.) and wood plastic composite (WPC). For very hard imported timbers, we recommend pre-drilling with 3 mm dia. and substructure clearance of max. 40 cm.

# PLAN AND BUILD YOUR OWN DECKING

Discover our new

## **SPAX Decking Portal and Configurator.**

The Ideal assistant to make your projekt  
a success!



**Plan online now:**  
[deck.spax.com](https://deck.spax.com)

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01/2024 Subject to technical change.

