SPIRAL
FOUNDATION SCREW

COBRA GLOBAL DECKING SYSTEM FASTENER®

PRODUCT SHEET

FEBRUARY 2025

COBRA GLOBAL DECKING SYSTEM FASTENER®

EFFICIENT RESISTANT VERSATILE

— **High compression loads**
— **Pull-out resistance**
— **Durable Galvanized steel**
— **Penetrating tip**
— **No concrete slab required**
— **Removable**

COBRA GLOBAL DECKING SYSTEM FASTENER®

Disc diameter: 120 mm, thickness: 6 mm

Thick wall (3 mm)

Diameter: 60 mm

Large spin ensuring perfect anchoring in the ground

Strong penetrating tip

CERTIFICATES

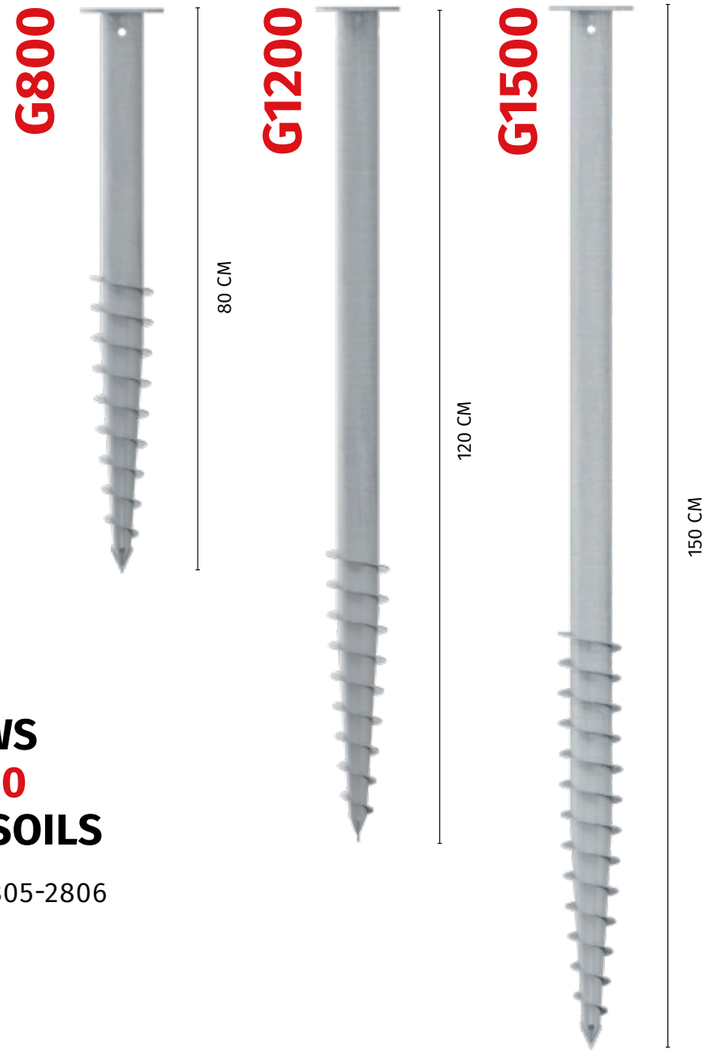
Manufacturing process **ISO 9001:2015**
Product **EN 1090**
Material **ISO 630 FE 360A**

Hot-dip galvanization **EN 1461**
Reinforced galvanized steel **Z600**
Average thickness 70 µm, min 55 µm
Durability **50 years***

Environmental performance **ISO 14001**

**Under normal exposure conditions*

COBRA GLOBAL DECKING SYSTEM FASTENER®



FOUNDATION SCREWS
G800, G1200 & G1500
FOR FIRM AND FILL SOILS

FD1577-1578-1806 / NL2804-2805-2806

— REINFORCED GALVANIZED STEEL Z600

— 3 AVAILABLE SIZES

— DIAMETER: 60 mm

— MINIMUM EMBEDDING DEPTH: 75 cm

LOAD CAPACITY (WITH 75 CM EMBEDDING)

		G800		G1200		G1500	
Soil Class		Bearing Capacity (kN)	Tensile Resistance (kN)	Bearing Capacity (kN)	Tensile Resistance (kN)	Bearing Capacity (kN)	Tensile Resistance (kN)
Clays & Silts	Soft (Pi = 0,4 à 1,2 Mpa)	3,9	1,2	4,8	1,8	5,5	2,3
	Firm (Pi =1,3 à 1,9 Mpa)	8,7	1,7	10,0	2,5	11,0	3,1
	Stiff (Pi = 2 MPa)	13,1	1,8	14,4	2,7	15,4	3,3

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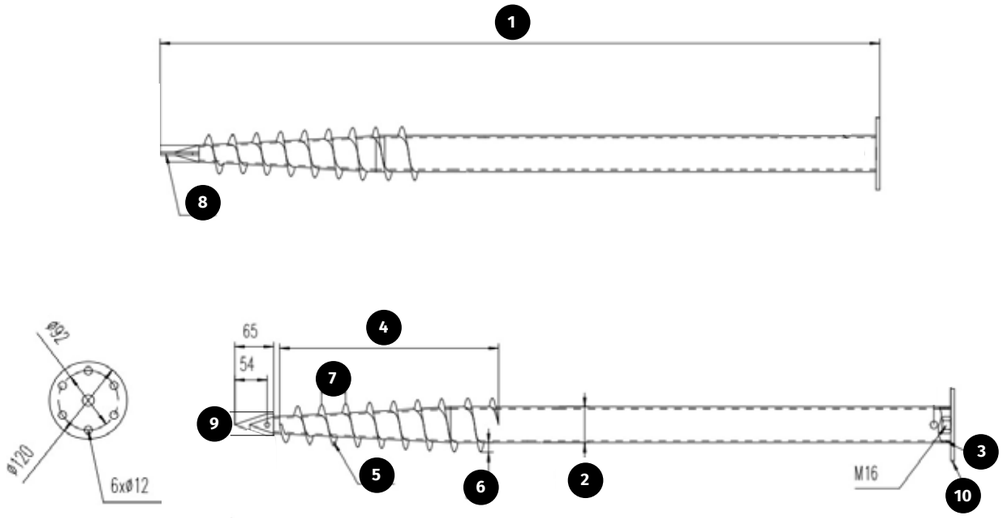


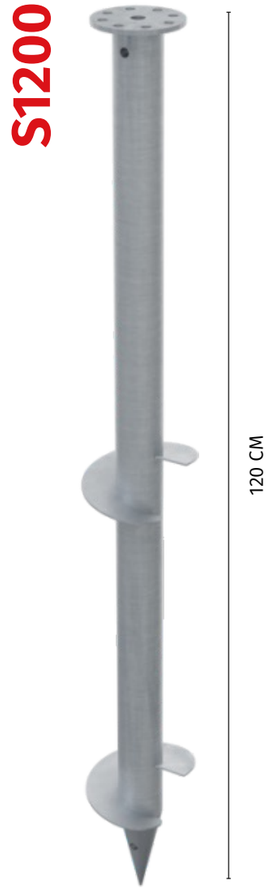
CHARACTERISTICS

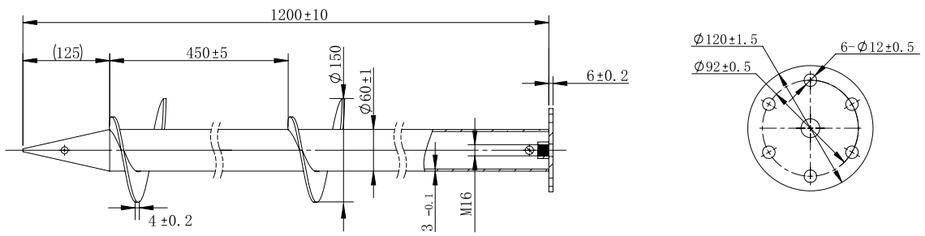
		G 800	G 1200	G 1500
1	Screw length +/- 10 mm	800 mm	1200 mm	1500 mm
2	Screw diameter +/- 1 mm	60 mm		
3	Wall thickness	3 mm		
4	Screw flight length +/- 10 mm	360 mm	360 mm	600 mm
5	Screw flight thickness	2 mm		
6	Screw flight height +/- 1 mm	15 mm		
7	Screw flight spacing +/- 3 mm	40 mm		
8	Tip thickness	4 mm		
9	Tip width +/- 1 mm	38 mm		
10	Disc thickness	6 mm		
	Weight	4,2 kg	6,2 kg	7,5 kg

FOUNDATION SCREW S1200 FOR SANDY & LOOSE SOILS

FD1807 – NL2808

— Special design for soft soils, especially sand
— Improved pull-out resistance
— Length: 1200 mm
— Minimum embedding depth: 80 cm
— Weight: 6.5 kg





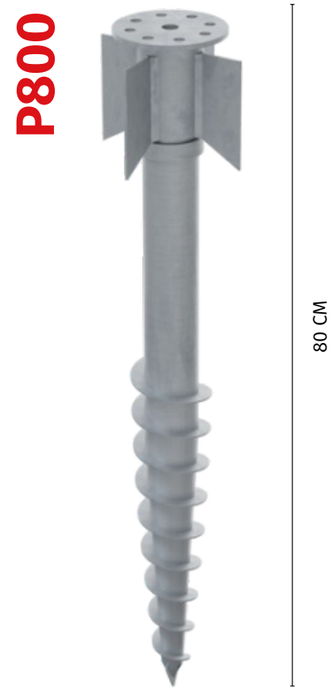
LOAD CAPACITY (WITH 80 CM EMBEDDING)

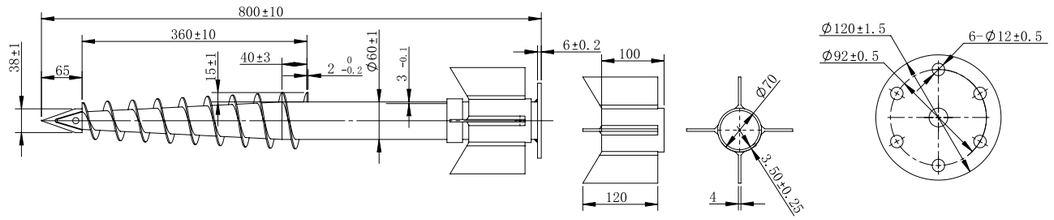
		S1200	
Soil Class		Bearing Capacity (kN)	Tensile Resistance (kN)
Sands & Gravels	Very loose (Pi < 0,2 MPa)	< 7,1	< 0,8
	Loose (Pi = 0,2 à 0,5 MPa)	7,1	0,8
	Medium dense (Pi = 0,6 à 1,0 MPa)	17,5	1,7
	Very dense (Pi = 1,1 à 2,0 MPa)	34,1	2,8

POST SCREW P800 FOR CARPORT & PERGOLA POSTS

FD1808 – NL2807

— Designed for post installation (excluding fencing)
— Cross-brace for better lateral force resistance
— Length: 800 mm
— Minimum embedding depth: 75 cm
— Weight: 5.5 kg





CAPACITIES (WITH 75 CM EMBEDDING)

		P800	
Soil class		Bearing Capacity (kN)	Tensile Resistance (kN)
Clays & silts	Soft (Pi = 0,4 à 1,2 Mpa)	3,9	1,2
	Firm (Pi =1,3 à 1,9 Mpa)	8,7	1,7
	Stiff (Pi = 2 Mpa)	13,1	1,8

SPIRAL SUPPORTS & ACCESSORIES

JOIST SUPPORT

FD1809 – NL2810

— L-bracket support for securing and fastening joists or beams
— Lateral and axial adjustment
— Threaded rod 16 x 200 mm
— Maximum adjustment height: 15 mm
— M16 nut

POST SUPPORTS FOR CARPORTS & PERGOLAS

FD1901 – NL2864 / FD1902 – NL2865

— U-bracket support for post installation
— Available in two sizes: 90 x 90 mm and 120 x 120 mm
— Height: 150 mm, Thickness: 3 mm
— M16 x 50 fastening screws and washers included

SLOPE CORRECTION DISC

FD1904

— Allows for correcting the inclination of the foundation screw and leveling the U-support

SHIM CLIP FOR JOIST SUPPORT

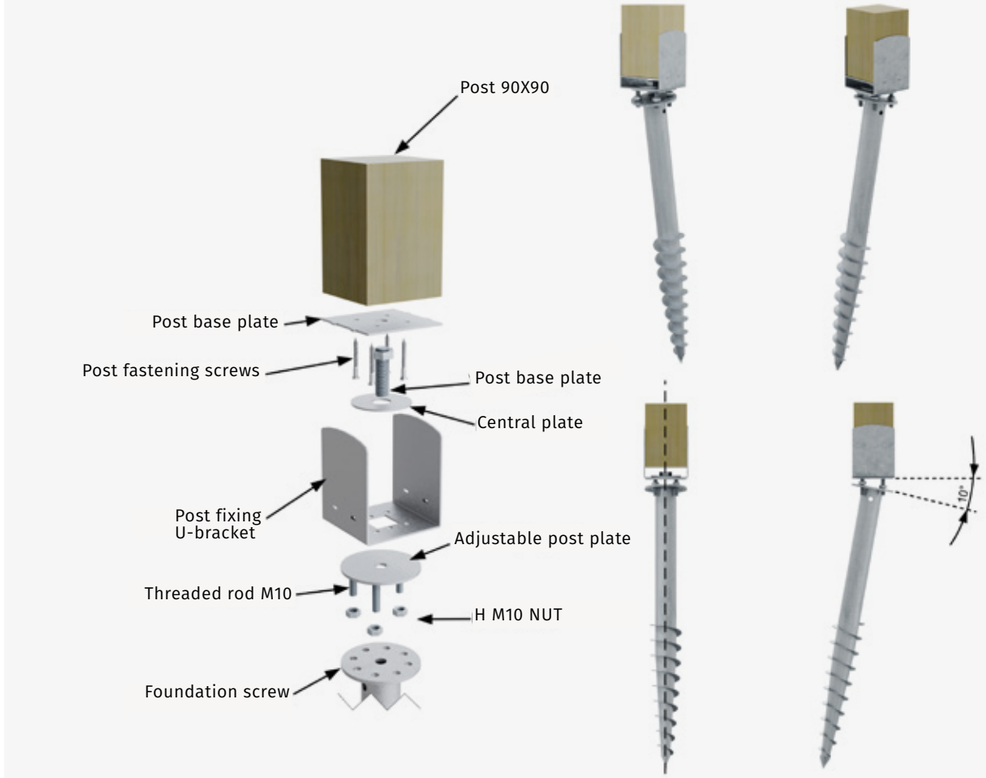
FD2092 – NL2997

— Polyethylene
— Shimming for STRUCTURAL 80 and 120 joists
— Assembly on the L -bracket support

MULTI-PURPOSE SUPPORT

FD1221 – NL2618

— 90 x 90 mm square support
— Multiple fastening options
— Threaded rod 16 x 200 mm
— Maximum adjustment height: 15 mm
— M16 nut



INSTALLATION PROCESS

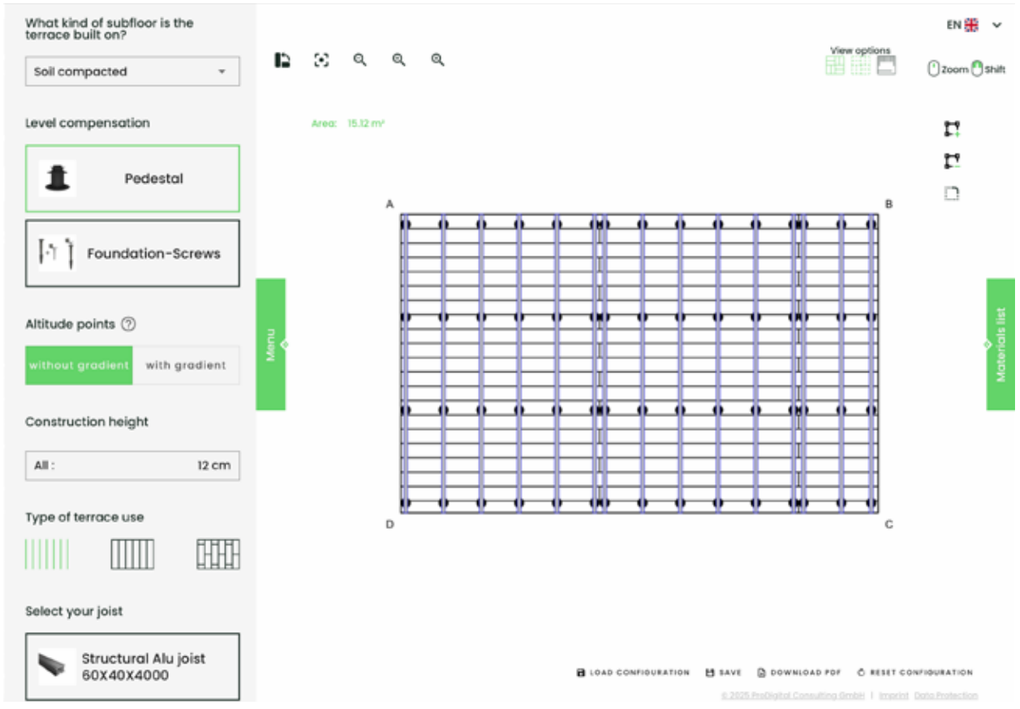
Reliable installation of foundation screws depends on following correct installation steps, the materials used and the nature of the soil.

1. CHOOSING AND PLACING THE FOUNDATION SCREWS

Selecting and installing foundation bolts requires careful planning to ensure the structure's stability and durability.

Calculating the number and positioning of foundation screws depends on the nature of the soil, the load to be supported, the capacity of the screws, the characteristics of the structure and its configuration.

Our MyDeckPlanner calculator takes multiple parameters into account to determine which screws are suitable for your project, how many are needed, and where they should be installed.



2. GROUND MARKING

The marking is essential to spot the precise locations of the requested screws and to make sure that the deck structure will be properly aligned.

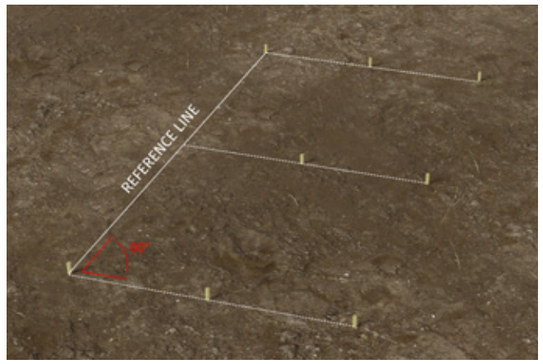
1. Define a reference line on which to align one of the sides of the structure to be built.

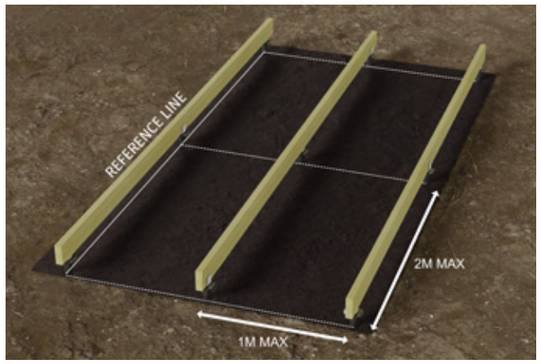
2. Lay the geotextile felt.

3. Establish points of perpendicularity to this reference line to create right angles.

4. Draw a line between the markings.

5. Place drilling marks on parallel lines, following the recommended beams maximum distances between supports and joists center distances.



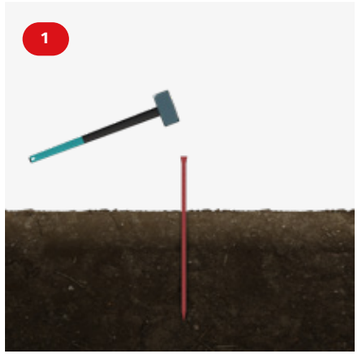


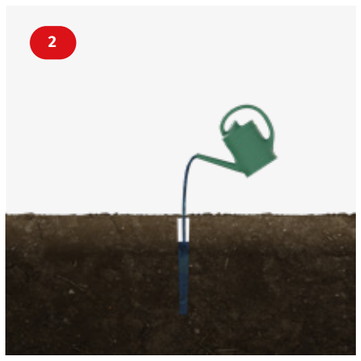
EXAMPLES OF SUPPORT SPAN DISTANCES

Joists	Distance
Treated pine 45 x 145	2 Meters
Structural Alu 60 x 80	2 Meters
Structural Alu 60 x 120	3 Meters

** Refer to the technical information of the joists and beams used to know the maximum allowable support span distances.*

3. SOIL PREPARATION





Pre-drilling and lubrication are essential to help install the foundation screw.

ATTENTION: Make sure there are no cables, pipes, etc. hidden in the area where the screws will be drilled.

1. Manual or mechanical pre-drilling will allow you to check the nature of the soil at depth, and will then facilitate penetration of the screw into the ground.

Use a crowbar and sledgehammer or a perforator fitted with a drill bit at least 35 mm in diameter. Make a hole less deep than the length of screw to be buried.

2. Lubricating the hole with water, especially in hard or very dry soil, will make drilling easier and put less strain on the tooling.

Engage the foundation screw a few turns by hand in the front hole to ensure a vertical start to the burial phase.

4. INSTALLATION TOOLS

ADAPTER FOR IMPACT WRENCH

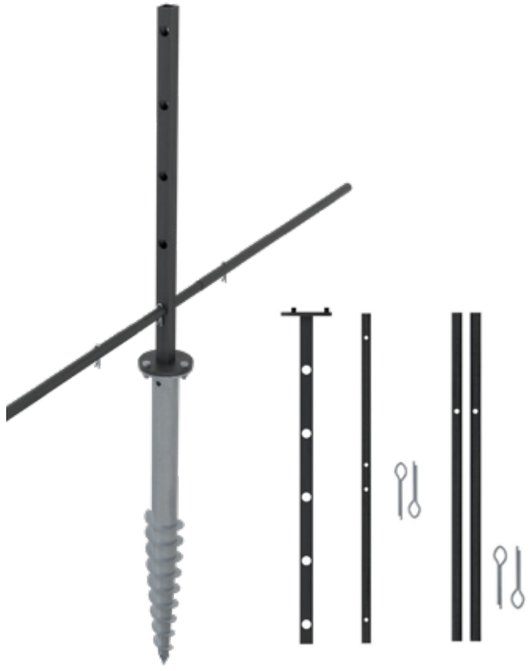
FD0616 – NL2385

- **Ensures the connection between the installation tool and the foundation screw.**
- **Central fastening with a single screw for easy, quick, and secure assembly.**
- **6 peripheral lugs.**
- **Integrated bubble level to check installation verticality.**
- **Central hex head M41.**

MANUAL SCREWING BAR

FD0615 – NL2384

- **Screwing kit for manually anchoring the foundation screw.**
- **Includes a pre-drilled post for height adjustment of the bar as screwing progresses.**
- **160 cm span and 3 mm thickness, providing a leverage arm for easier tightening.**
- **3 bolts + nuts to securely fasten the tool to the screw.**
- **The bar can be raised during screwing to facilitate pushing.**



5. INSTALLATION WITH AN IMPACT WRENCH

Using an impact screwdriver for installing the foundation screw requires assembling **the M41 adapter** onto the disc.

Subjected to strong vibrations and significant stress during drilling, it must be assembled with sufficient torque to prevent deterioration.

It is therefore highly recommended to use an impact driver to firmly lock the central M16 tightening nut.

COMPATIBILITY:

Impact wrench compatibility: Milwaukee M18FHIWF1-122 or Makita TW1000 with a 41 mm socket.

1. Engage the drilling tool's socket onto the M41 adapter.

2. Perform the necessary rotations to reach the desired anchoring depth.
The minimum burial depth is 75 cm (80 cm for G 1500 and S 1200 screws).

The integrated bubble level allows for checking the verticality of the installation.

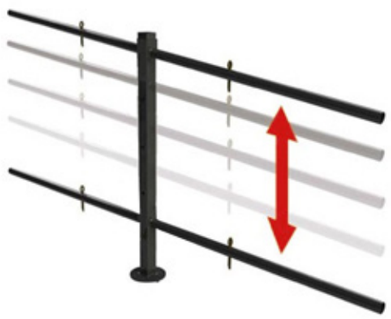
3. Remove the tool, then unscrew the M41 adapter from the foundation screw disc.
Your anchoring is now ready to receive the required SPIRAL mounting support for your construction.

5b. INSTALLATION WITH THE MANUAL SCREWING TOOL

1. Connect the tool to the foundation screw disc using the 3 provided nuts.

2. Perform the necessary rotations nécessaires pour atteindre la profondeur d'ancrage souhaitée
L'enfouissement minimum est de 75 cm (80 cm pour les vis G 1500 et S 1200).
The 160 cm bar provides leverage to facilitate screwing into the ground.

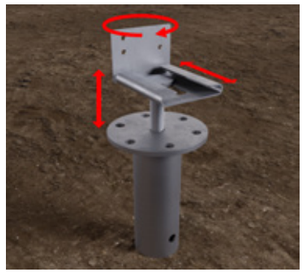
3. Remove the tool from the foundation screw.
Your anchoring is now ready to receive the required SPIRAL mounting support for your construction.



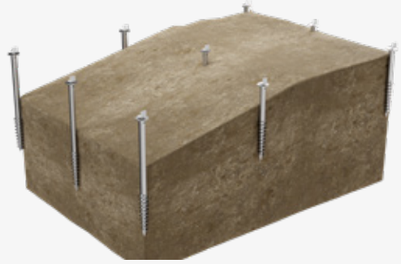
The position of the screwing bar can be raised on the post during screwing to facilitate pushing.

6. STRUCTURE INSTALLATION

Screw the appropriate SPIRAL support for the structure to be installed, either a joist support or a flat support, and precisely adjust the threaded rod to the desired height **(from 0 cm to a maximum of 15 cm).**

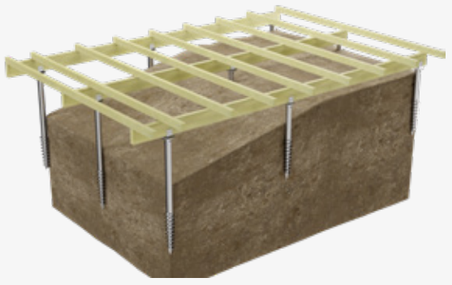


INSTALLATION STEPS



Step 1 ***Foundation screw installation***

Step 2 ***Beams installation***



Step 3 ***Joists installation***

Step 4 ***Decking installation***

WARNING, USING FOUNDATION SCREWS REQUIRES CHECKING FOR THE ABSENCE OF UNDERGROUND UTILITIES AT THE DRILLING POINTS.

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