

# KRINNER

## SUSTAINABLE CONSTRUCTION

The pioneer in sustainable foundation construction



design by cubushome.com

# GROUND SCREWS

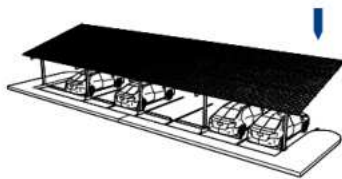
## Pile foundations with KRINNER

KRINNER Ground Screws are based on one of the oldest and most proven forms of foundation. The flexibly extendable pile made of hot-dip galvanized steel tubes is driven into the ground in a rotating, vibration-free and noise-reduced manner and is designed for vertical and horizontal load bearing.

➔ In principle KRINNER Ground Screws are suitable for use in any type of soil.

## VARIOUS APPLICATION POSSIBILITIES

as surface, floating or deep foundations



# SYSTEM DISPLAY

## of KRINNER Ground Screws

Ground Screws are an excellent alternative for sustainable construction and offer clear advantages compared to a conventional concrete foundation.



### Ecological

- No soil sealing
- Barely any crop damage
- Residue-free dismantling
- Circular building materials

### Efficient

- Makes it possible to access hard to reach construction sites
- No need to move earth
- Quick installation
- Immediately loadable
- Simple deep foundation construction

### Safe

- Has been used for centuries
- Proven
- High load bearing capacity
- Highest quality standards



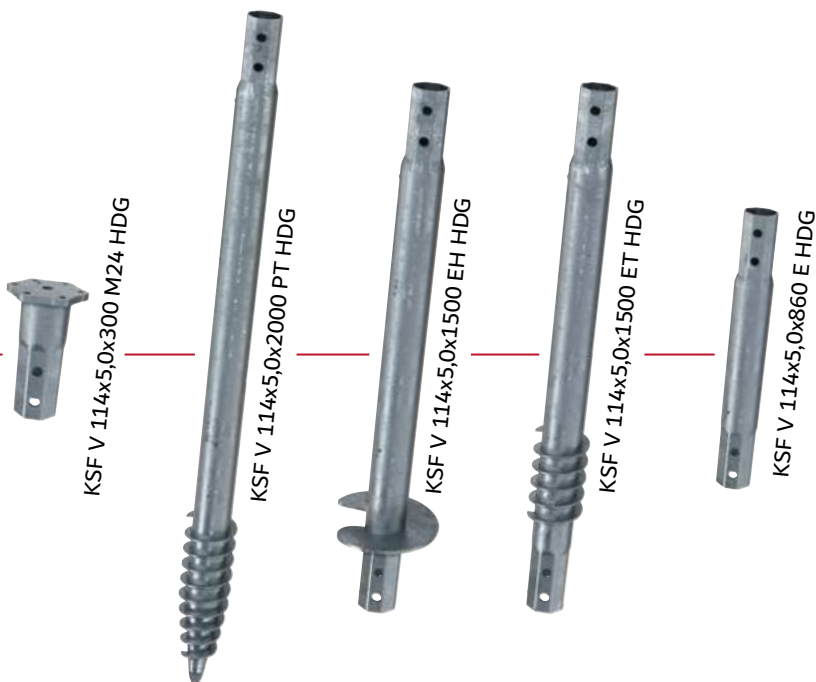
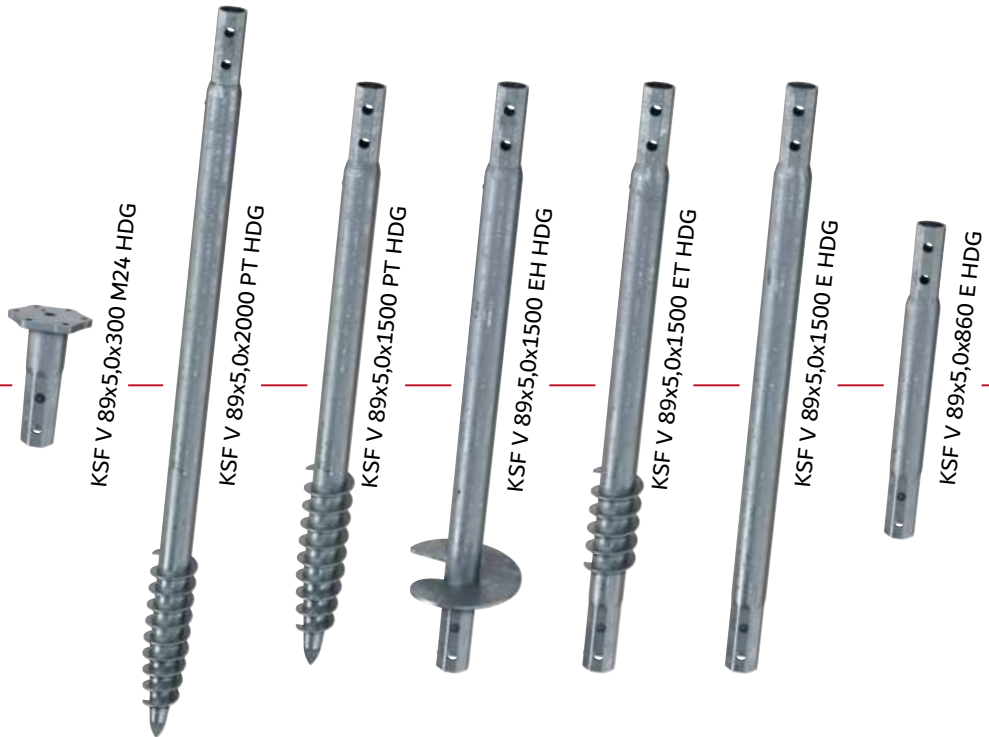
# V-SERIES

The solution for economical surface and deep foundations



**V89**

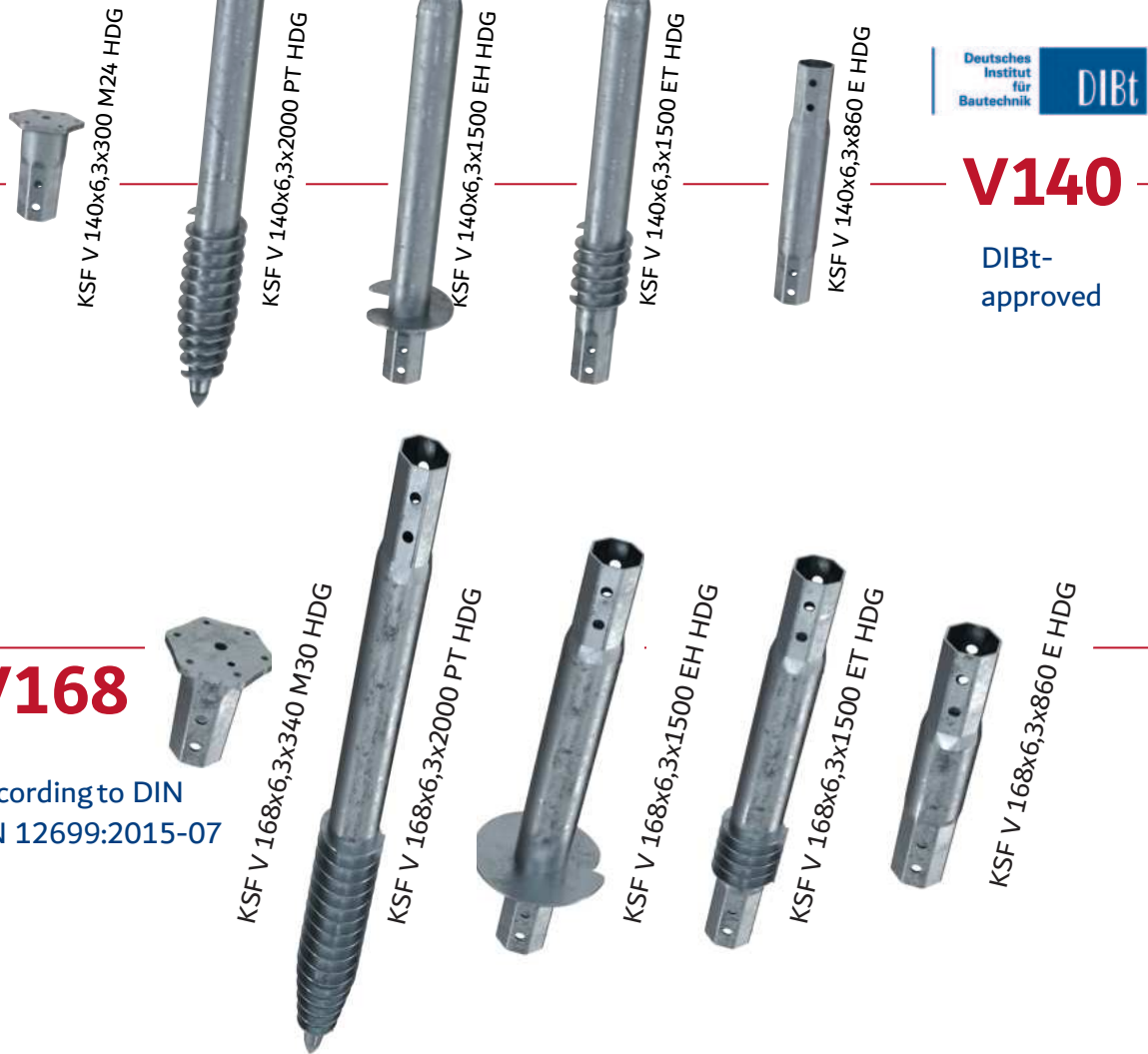
DIBt-  
approved



**V114**

DIBt-  
approved

Note: The flexible KRINNER screws are also available for higher individual load-bearing capacities in larger diameters.



## V168

according to DIN  
EN 12699:2015-07

## PRODUCTS



**Base element – PT:** The PT is the base element of the V-series and is always needed for the installation. The point and the thread help facilitate a quick feed into the soil. In addition, the thread ensures a higher load transfer into the ground compared to the pure surface friction on the pile shaft. Depending on the soil composition, an extension may be used. However, the PT may already be sufficient for a surface foundation if the soil composition is suitable. If this is the case, then only the head with the connecting flange needs to be installed afterwards.

**Extension element with thread – ET:** The ET is an extension element which can be used to penetrate through to deeper layers. With its thread, the ET supports the feed into the ground to prevent any “empty turning” of the ground screw element and on the other hand guarantees an even higher load transfer through the thread.

**Extension element with plate – EH:** An EH can be used as an extension when the ground screw has to carry even more additional load. The „plate“ on the ground screw increases the load-bearing capability of the screw thanks to its large surface area. The use of this extension is recommended in very soft and homogeneous soils.

**E extension elements:** The E extensions are levelling elements that can be used to level out any height differences. This can be useful for construction projects in sloping areas for example.

**Head element – M24:** The M24 is a head element which is needed as a connection part in the foundation construction.

# EQUIPMENT



## Related equipment for deep and system construction using Ground Screws

KRINNER sees itself as a system provider for sustainable foundation construction, so we offer the suitable test and installation equipment made by KRINNER.



### KRP SYSTEM

- Equipped with 15.000 Nm or 25.000 Nm Auger-Torque drive
- Equipment for horizontal coupling of the KRINNER ground screws
- Use with KRINNER data acquisition management



### KRL – LAFETTE

- In accordance with EN 16228-1
- Hydraulic connections, supply and return flow (see torque motor)
- Carrier vehicle wheel and telescopic loader with a lifting force at max. reach of 1.5 t
- Crawler or mobile excavator with a lifting force at max. reach of 1.5 t
- Mounting plate, quick-change device see operating instructions (depending on the carrier vehicle)



### KRD 30 – CATERPILLAR

- Self-driving caterpillar, light and manoeuvrable design
- Approx. 8,000 Nm torque
- 2.4 m drill lift
- Only 1,1 t transport weight
- Precisely-defined feed force



### LOAD TESTING EQUIPMENT

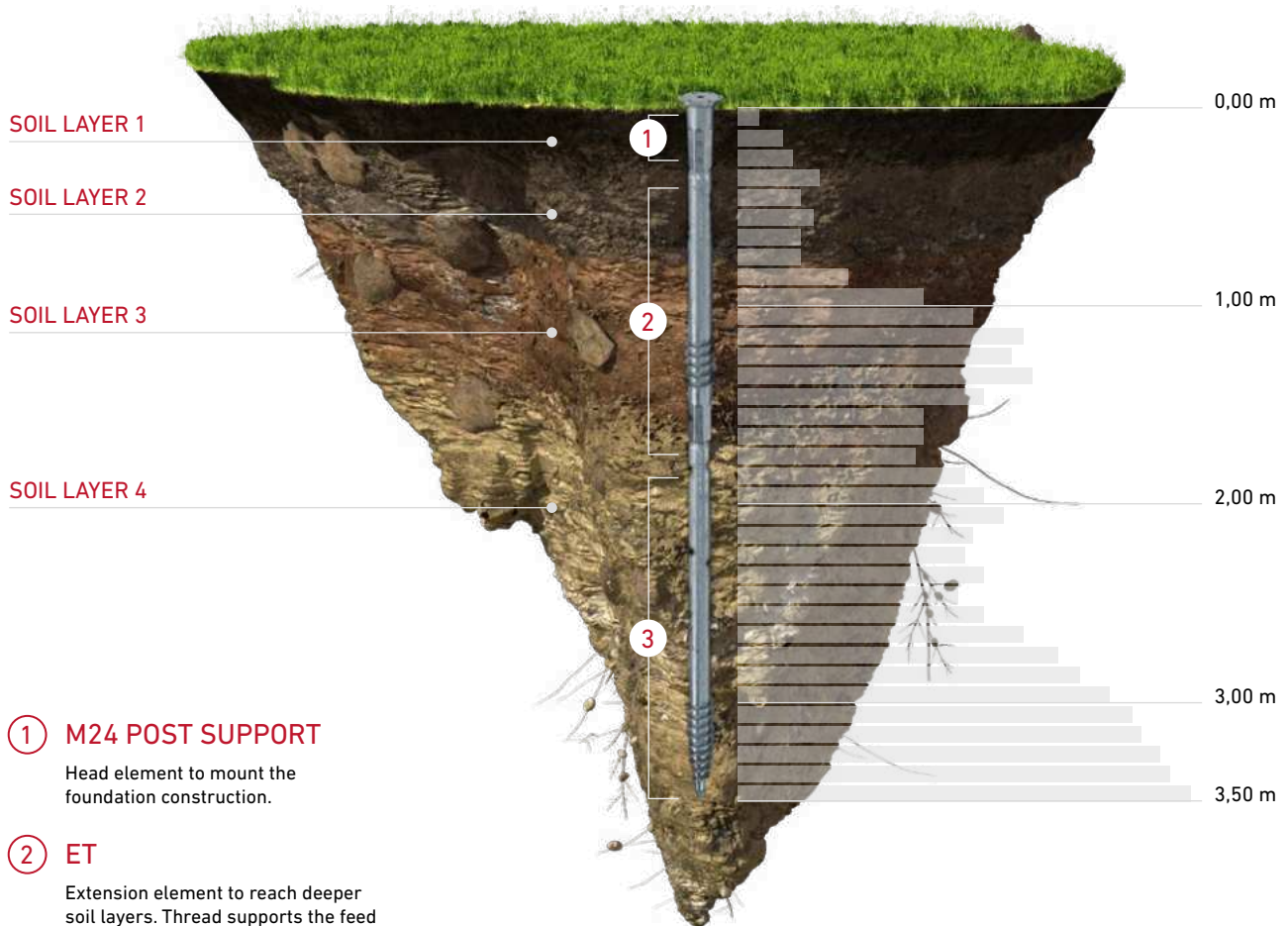
- Different designs for up to 500kN test load
- According to the applicable specifications of the standards in force



**KRINNER  
INSTALLATION  
EQUIPMENT**

# APPLICATION

## V-series in the ground – with illustration Dynamic probing and soil layers



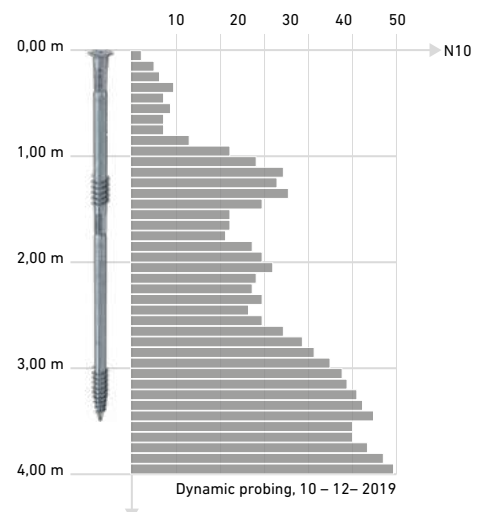
- ① M24 POST SUPPORT**  
Head element to mount the foundation construction.
- ② ET**  
Extension element to reach deeper soil layers. Thread supports the feed into the soil.
- ③ PT**  
Basic element, which is always used. Foundation point and thread help facilitate efficient and safe screwing in of foundation.

**SOIL LAYER 1**  
**COHESIVE SOIL**  
Humus layer, clayey and muddy, strongly rooted

**SOIL LAYER 2**  
**NON-COHESIVE SOIL**  
Very fine sand to slightly coarse-grained sand

**SOIL LAYER 3**  
**SLIGHTLY COHESIVE SOIL**  
Slightly muddy, fine sand to strongly coarse-grained sand

**SOIL LAYER 4**  
**NON-COHESIVE SOIL**  
Fine to coarse-grained sand





A modern two-story house at dusk. The house features a mix of white panels, dark wood siding, and large glass windows. The interior lights are on, creating a warm glow. A balcony with a glass railing is visible on the upper floor. A small table and chairs are on the lower balcony. The sky is a deep blue, and there are some plants on the right side.

**CUBUS-  
HOME**

# SUSTAINABILITY

## EPD for KRINNER Ground Screws

With the EPD (Environmental Product Declaration), we create an important basis for the sustainability assessment of KRINNER Ground Screws. An EPD describes building materials or building components in regard to their environmental impact on the basis of eco-balances as well as their functional and technical properties. This quantitative, objective and verified information relates to the entire life cycle of the Ground Screw.





**CONSTRUCTION  
PROJECTS WITH  
KRINNER**



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