



**Pietrucha**  
Established 1960

## **Earth Anchors**

Universal and reliable  
anchoring systems



# The Pietrucha Group

**Proudly Polish Truly International.**

**The Pietrucha Group** is an efficiently managed, competitive and innovative group of companies, which specializes in the manufacturing and distribution of top-class geosynthetic products as well as providing a comprehensive range of geotechnical services broadly used in civil engineering.

Geosynthetic products manufactured by the Pietrucha Group are delivered to nearly 3500 customers in 34 countries on 5 continents, especially in regions sensitive to the impact of climate change. Despite the scope and global reach of our operations, the Pietrucha Group has remained a family business, managed by a third generation of entrepreneurs.



Earth Anchors used to anchor of a sheet pile wall made of steel sheet piles.

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# Earth Anchors Advantages

Pietrucha Group offers anchoring systems that may be broadly used to fix industrial and commercial structures and other objects, irrespective of their size.

The working principle of the anchors is based on transferring the tensile forces onto the bearing layer of the soil. It is achieved as a result of the unique construction where ground resistance arises on the surface of the anchor foot during its movement (rotation). Creation of a stress zone in the shape of a truncated cone helps obtain the bearing capacity of the entire system.

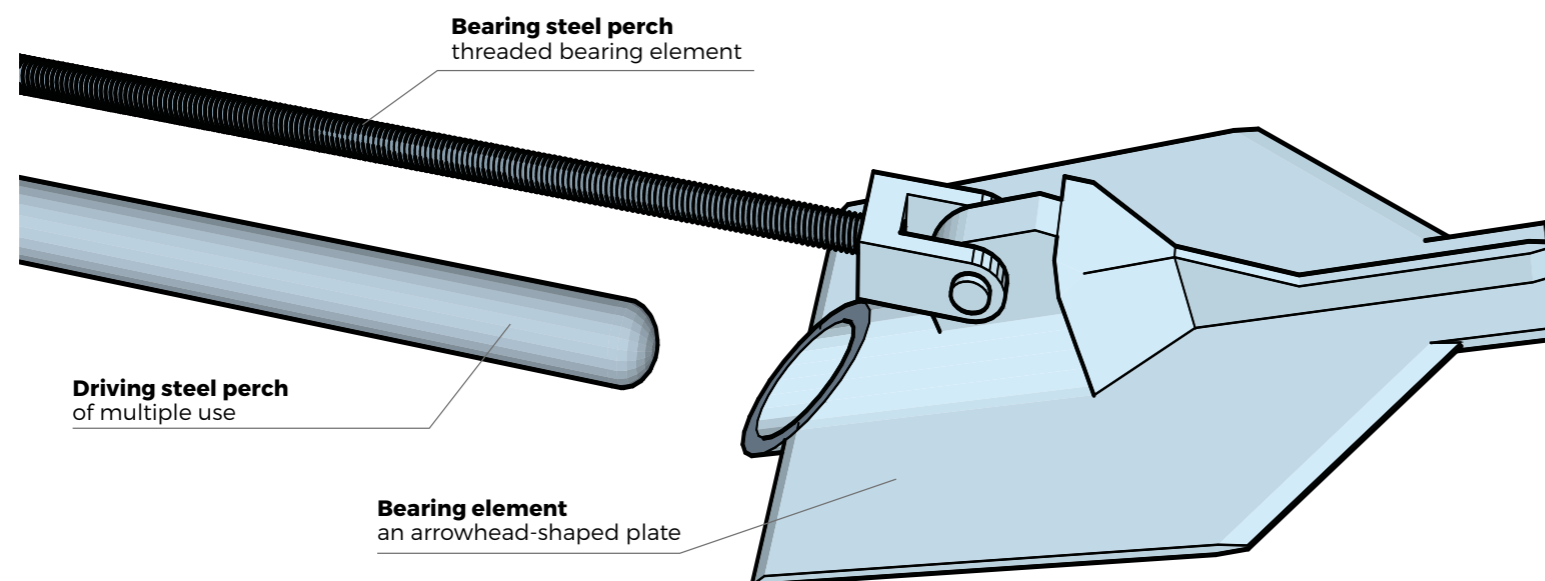
The working principle of the driven earth anchors is based on ground resistance, arising on the surface of the anchor foot during its movement (rotation).

## Universal and non-invasive system

- Does not disturb the structure of the formation, may be used in different types of soil
- Does not require any excavation works for the anchor plate
- The anchoring system is bearing and sealed without the use of cement paste
- Environmentally friendly solution

## Simple and fast installation

- Does not require drilling equipment
- Simple installation using standard tools
- Installation does not require excessive manpower



Embedding of the whole set in the ground



Pulling out the steel drive perch



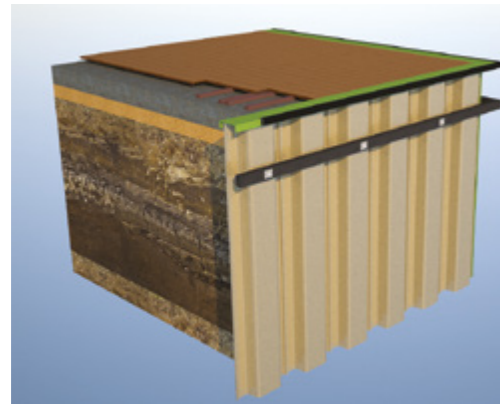
Stretching the drive steel and thus giving it pretension. Bearing capacity is achieved by turning the bearing element 90°



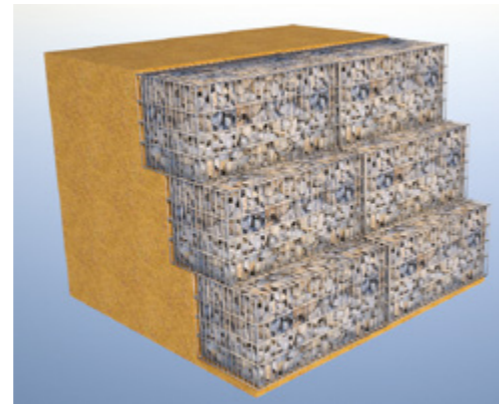
Creation of a stress zone in the shape of a truncated cone, and thereby obtaining the bearing capacity of the entire system

# Earth Anchors Selected Applications

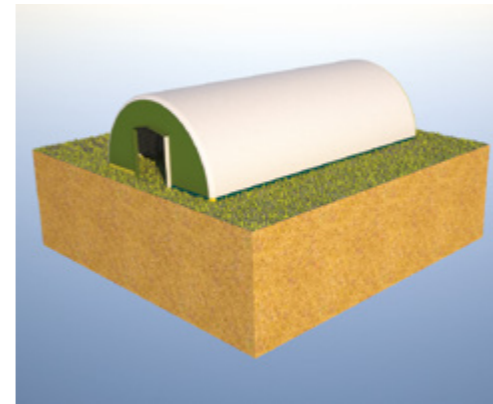
**Anchoring of sheet piling and retaining walls manufactured by the Pietrucha Group**



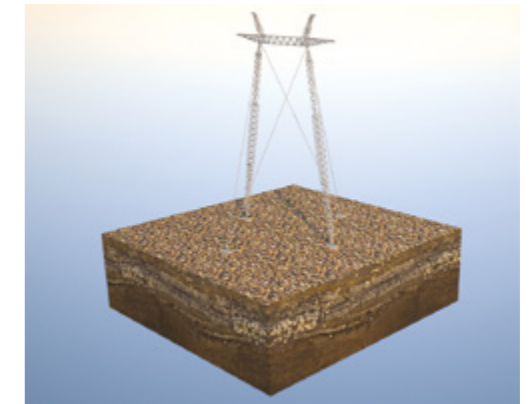
**Anchoring gabions**



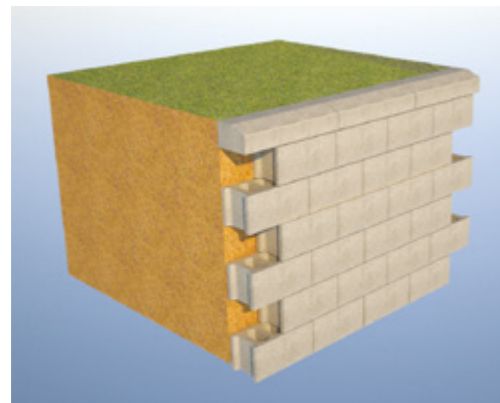
**Anchoring of industrial constructions (pipelines, light steel constructions, balloon halls)**



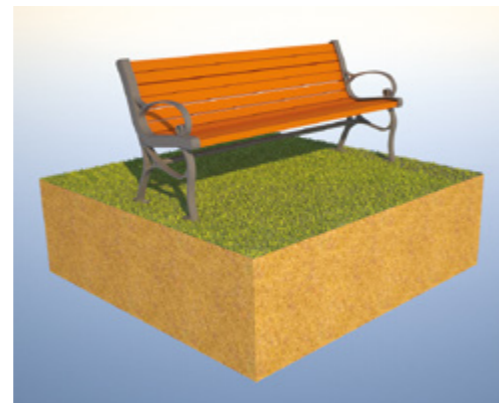
**Anchoring of broadcasting and transmission masts and columns**



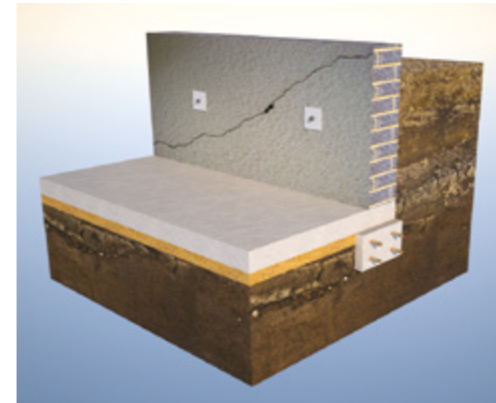
**Anchoring of retaining walls composed of block elements**



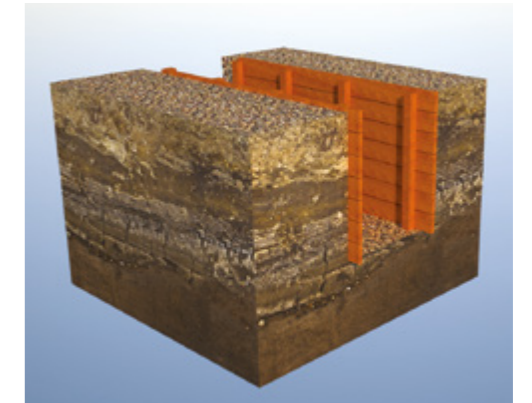
**Anchoring of various objects (benches, waste bins, pergolas, etc.)**



**Reinforcement of foundations**



**Anchoring of trench shoring**

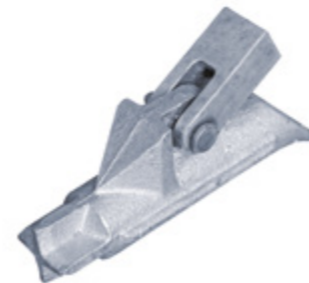
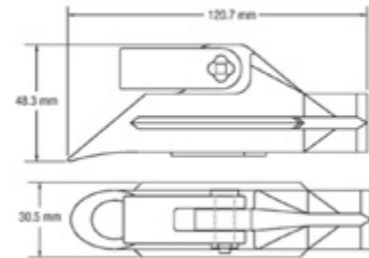


## Bearing test

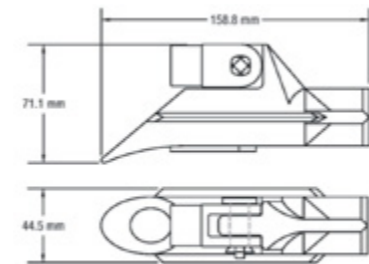
A special hydraulic device is used for pulling out the bearing steel in order to rotate the anchor plate. It confers the expected tension to the bearing steel, and with the installed manometer we can precisely control the amount of force. If the anchor gives no resistance when pulling at a given force setting (it does not achieve an adequate bearing capacity), we know that we need to use a larger anchor plate or a longer bearing steel. We are in a state of "in situ" to examine the correctness of the design assumptions.

# Earth Anchors Product Range

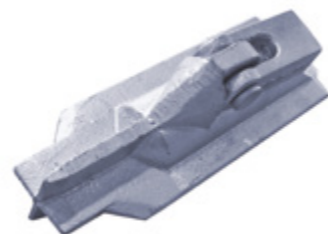
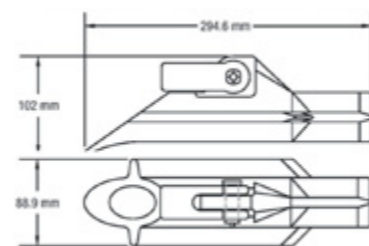
<b>JLD 1.0</b>	<b>unit</b>	<b>value</b>
Bearing capacity	kN	16
Width	mm	30,5
Lenght	mm	120,7
Height	mm	48,3



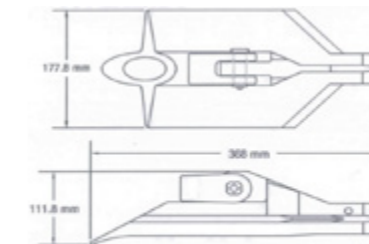
<b>JLD 1.2</b>	<b>unit</b>	<b>value</b>
Bearing capacity	kN	40
Width	mm	44,5
Lenght	mm	158,8
Height	mm	71,1



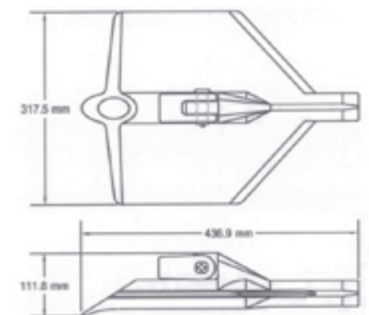
<b>JLD 1.4</b>	<b>unit</b>	<b>value</b>
Bearing capacity	kN	120
Width	mm	88,9
Lenght	mm	294,6
Height	mm	102



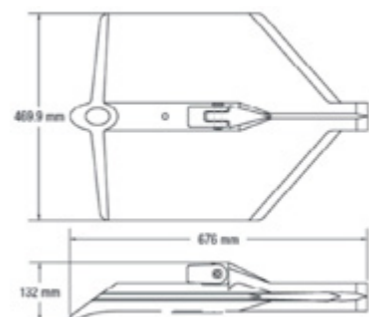
<b>JLD 2.2</b>	<b>unit</b>	<b>value</b>
Bearing capacity	kN	220
Width	mm	177,8
Lenght	mm	368
Height	mm	111,8



<b>JLD 2.4</b>	<b>unit</b>	<b>value</b>
Bearing capacity	kN	220
Width	mm	317,5
Lenght	mm	436,9
Height	mm	111,8





<b>JLD 2.8</b>	<b>unit</b>	<b>value</b>
Bearing capacity	kN	220
Width	mm	469,9
Lenght	mm	676
Height	mm	132



# Selected projects





 **Anchoring a pipeline**  
 JLD 1.4





 **Anchoring a protection of excavation**  
 JLD 2.4





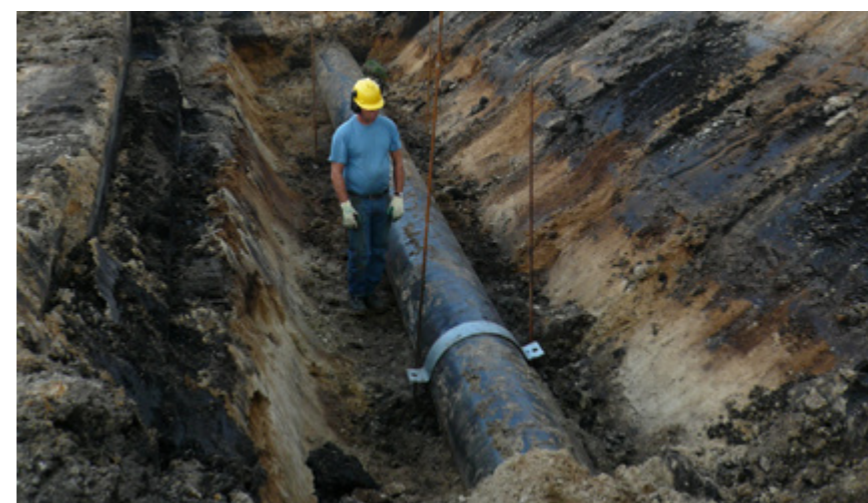
 **Anchoring a shore protection**  
 JLD 2.2



 **Anchoring a shore protection**  
 JLD 2.2



 **Anchoring of a sheet pile wall made of steel sheet piles**  
 JLD 2.4



 **Anchoring a pipeline**  
 JLD 1.4



**Pietrucha**  
Established 1960

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