



PLATIPUS
EARTH ANCHORING SYSTEMS

Temporary & Permanent Structures

Brochure

INTRODUCTION TO PDEA®

Percussion Driven Earth Anchors

Platipus has over 35 years of experience in the design, manufacture and supply of Percussion Driven Earth Anchors (PDEA®) for a wide variety of market sectors. The proof of our work, engineering skills and diligence speaks for itself in the large portfolio of examples and applications shown in this brochure and on our websites.

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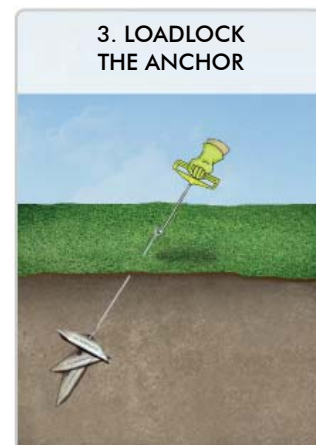
- Lightweight alternative to traditional tent pegs / steel pins
- Low cost option to concrete foundations
- Fast and easy installation using simple hand tools
- Proof tested anchor points in minutes
- Can be easily installed by local, unskilled labour



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'SIMPLY' HOW A MECHANICAL ANCHOR WORKS

There are three steps to the installation of an anchor system:



TENSILE STRUCTURES

Awnings, Canopies, Sunshades

Platipus Earth Anchoring Systems have secured a range of tensile structures at open air events, industry exhibitions and VIPs' private parties. Quick to install and with a choice of connections, these are a versatile alternative to other labour and time intensive solutions.

With no grouting or excavation required, our anchors are typically driven into the ground between 1m and 4m and can be proof tested immediately to a holding capacity of up to 200kN.



'Bat' Anchor



'Stealth' Anchor

Ideal for residential and commercial applications including beach and desert based events.



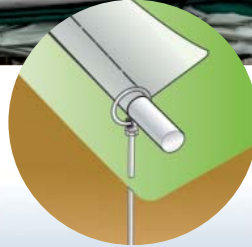
INFLATABLE DOMES

All Weather Tennis Courts, Football Pitches, Swimming Pools, Hockey Fields

The need for year-round sport has led to an increase in the use of inflatable structures, most popular with tennis and football clubs, allowing for training, coaching and practising to continue in all weather conditions.



Installed using readily available, standard equipment



Anchors suit standard dome connections for easy installation

With no excavation required and simplified planning approval, the Platipus System is fast becoming the preferred foundation choice over traditional concrete options. The ease and speed of anchor installation are key to removing the need for any specialist contractors and helps reduce the completion time, providing an overall cost saving on the project.

Anchor sizes for inflatable domes typically range from the S8 to the B6 which can provide loads from 10kN up to 100+kN, depending on the soil conditions. These anchors are supplied with a length of threaded rod, galvanised for a standard 20 – 30 year design life or the unique Plati-Thread stainless steel rod for a design life of up to 120 years. As with all Platipus Systems, each anchor can be proof tested to an exact holding capacity before being connected to the structure. Site testing, design guidance and on-site support is also offered from start to finish.



TEMPORARY STRUCTURES

Grandstands, Seating, Staging, Film Sets, Art Installations



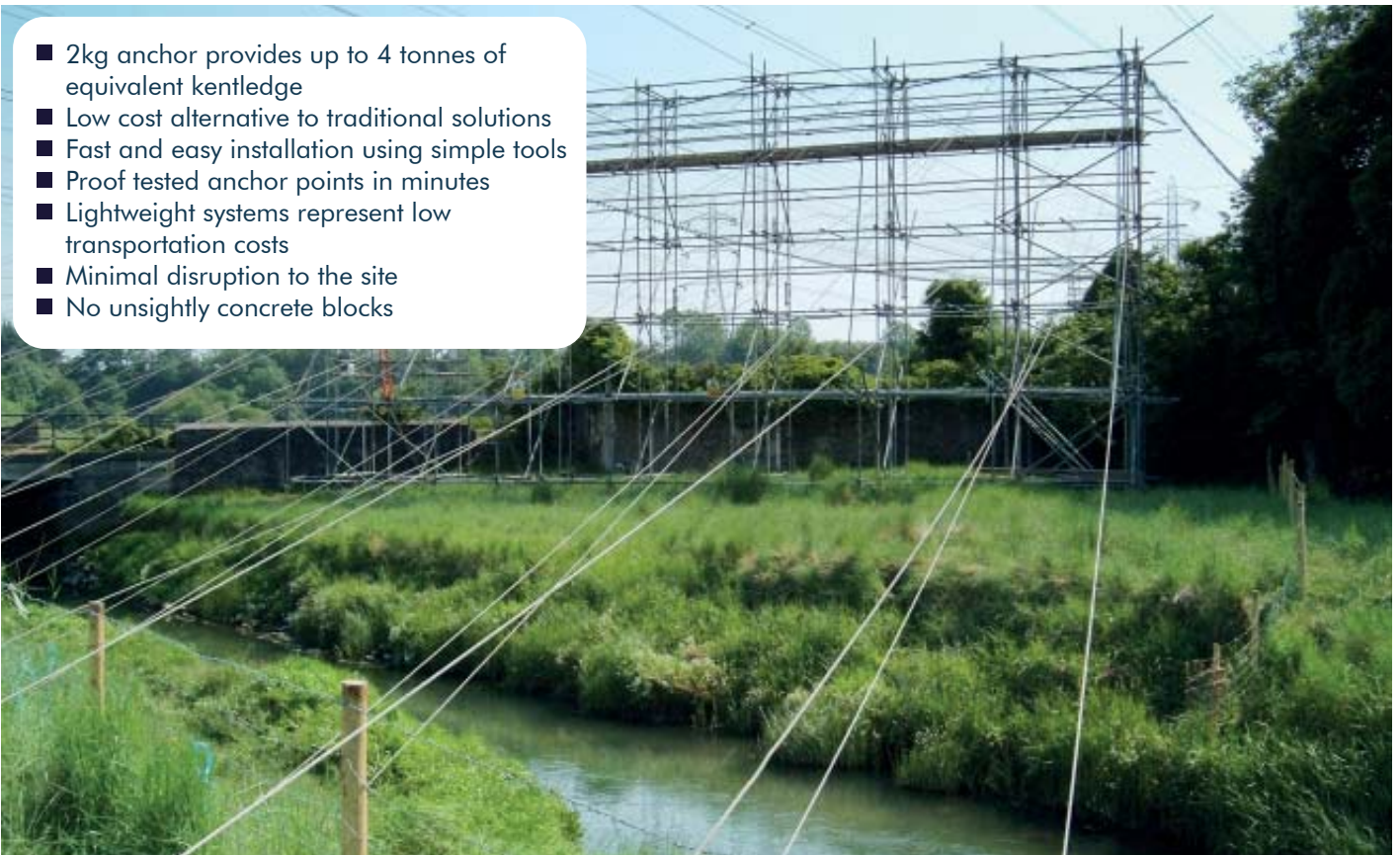
Platipus offers a versatile range of anchoring systems to secure all types of temporary structures. Where alternative methods are heavy, unreliable and expensive to transport, our lightweight solutions can be proof tested upon installation using locally available equipment. Our Stealth Anchors on wire tendons with tamper proof components can be connected to the base or lower part of the structure, alternatively a webbing strap can also be used. Cast iron anchors are available for hard ground conditions.

Where time and resources are limited, we design our anchoring systems to match the exact load requirements and design life of the temporary structure and with over 30 years of experience, can advise the safest and most efficient installation technique for your project.

SCAFFOLDING

Power Line Crossings, Heritage Buildings, Temporary Roofs, Lateral Support

- 2kg anchor provides up to 4 tonnes of equivalent kentledge
- Low cost alternative to traditional solutions
- Fast and easy installation using simple tools
- Proof tested anchor points in minutes
- Lightweight systems represent low transportation costs
- Minimal disruption to the site
- No unsightly concrete blocks



BUILDINGS & SHELTERS

Housing/Accommodation, Storage Containers, Relocatable Halls, Portable Offices/Kitchens

Platipus Anchors are ideally suited to provide standard foundation solutions for temporary or permanent buildings and shelters. With the ability to manufacture bespoke anchoring systems, even the most difficult and unique challenges can be overcome.



For temporary use the anchors are supplied with galvanised wire, or for permanent structures a high grade stainless steel wire is used. When securing containers a pair of anchors and webbing strap combined with our tamper proof ratchet tensioner is an ideal solution.

Each solution is available in various anchor sizes to suit a range of soil conditions and load requirements. Using simple hand tools and readily available equipment, the anchor installation is quick and easy and can be completed in even the most remote locations using unskilled labour.



GUYED STRUCTURES

Tents, Field Hospitals, Adventure Rope Courses, Radio Masts/Antennas, Vehicle Recovery



One of the key elements of guyed structures is their ability to be used easily in remote locations across a variety of applications.

We have a range of small, lightweight & easily transportable standard anchor systems which can be installed and loadlocked by hand providing high performance, secure anchor points almost instantaneously.

The anchor systems are supplied with either galvanised or stainless steel wire ropes suitable for temporary or permanent use. Our unique plastic impregnated wire, with its high strength and smooth protected finish, is perfect to secure the high wooden poles of adventure ropes courses.

CASE STUDY

Inflatable Tennis Dome - Munich - Germany



Project Specification

To allow for year-round tennis, an all-weather inflatable dome was to be erected over two of the clubs courts. Platipus Earth Anchors were the preferred foundation solution due to the simplified building permissions process in comparison to concrete and the speed of installation, providing a considerable time saving for the completion of the project.

Solution

Anchor testing on site revealed that a B6 anchor, installed to a depth of 3m, would be required to reach the specified design loads of 23kN in the slightly wet clay soil. Once the anchor positions had been marked out, the installation was carried out swiftly using a small excavator with hydraulic hammer attachment. Due to its lifting capacity, the excavator was easily able to proof test each anchor to an exact holding capacity, after which the threaded rod was secured to a galvanised steel ground beam (buried below finished level) and finally the dome itself using bespoke fittings supplied by the manufacturer, Duol.



CASE STUDY

Malmö Amphitheatre - Sweden



Project Specification

The amphitheatre in Malmö has stood open to the elements for many years and it was decided that a canvas structure was required to protect the performers when they were on stage. Located on an exposed site, ground anchors were needed to secure the structure.

Solution

As the area around the stage was already landscaped, a long reach excavator was used to install the anchors at pre-determined locations. Each anchor was driven at a 60° angle until rock was reached then loadlocked into the glacial till. Finally, the rod was cut to length, finished with a bow nut and connected to the structure.



CASE STUDY

Glastonbury Pyramid Stage Speaker Stands - UK



Project Specification

To support and make safe the main speaker stands either side of the famous Pyramid Stage at the Glastonbury Festival. The stand lifts the massive event speakers above the crowd and each tower has to be secured to prevent toppling in this high risk public environment.

Solution

The speaker towers were erected either side of the stage. To provide support and prevent overturning, anchors were installed by machine at each corner of the structure. These had hard eye top terminations which were connected to the structure using a tendon guy wire and ratchet. A total of 8 anchors were installed per tower.



CASE STUDY

Gas Exhibition Canopy - Qatar



Project Specification

To anchor a 272m tensile sail made of PVC coated polyester fabric to cover an exhibit on the Doha Cornich highlighting the new Qatar Gas Pipeline. Due to the temporary nature of the structure and tight regulations regarding ground works, pouring concrete foundations was not an option. An ultimate load of 45kN per anchor was required (15kN working load with a factor of safety 3:1) using products suitable for 1 month.

Solution

Our geotechnical engineer specified the Platipus B6 Bat anchor which was supplied alongside smaller S10 Stealth anchor for site testing. The contractor installed the anchors, according to our advice and guidelines, to a depth of 5m at an angle of 30 degrees from the vertical. The lightweight installation tools were hired from Platipus and a local contractor provided the wheeled excavator fitted with a hydraulic breaker and an 80mm Ømoil point.





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