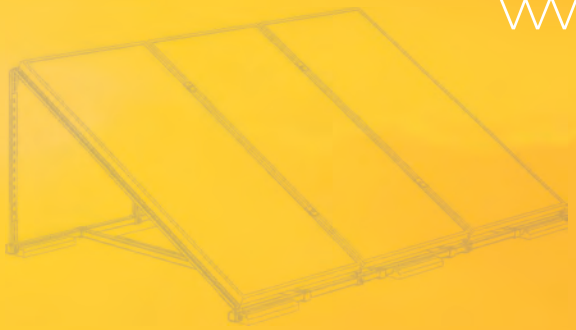
www.bigfootsystems.co.uk



SLAB BALLAST SUPPORT SYSTEM

CONCRETE BALLAST SUPPORT SYSTEM

solar
SUPPORT SYSTEMS

Non penetrative mounting systems
for solar panels on a flat roof

CONTACT US TODAY: T +44 (0)1323 844 355 SALES@BIGFOOTSYSTEMS.CO.UK

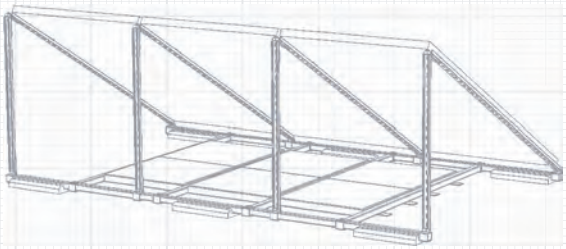
An introduction to us

Big Foot Systems have been designing and manufacturing support systems for air conditioning, ventilation and refrigeration on flat roofs for 10 years. We currently export to over 50 countries. Our customers asked us to produce a low cost, robust, quick to install solar support system for a growing market of consumers who want to install photovoltaic and solar thermal panels on their buildings.

The new feed in tariffs for solar panels have created a market place for small to medium size installations and customers want to be green, but at the same time want a return on their investment.

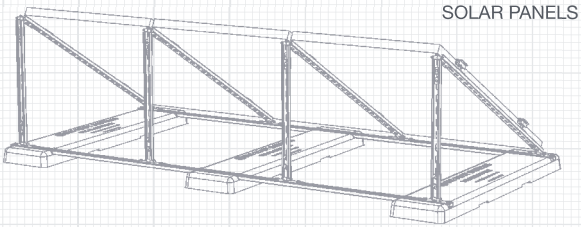
We have attempted to address all these issues by producing a range of simple flexible systems that are quick to install, and consequently make the whole process flow from the moment you take the first step to the moment your are making your own electricity.

We provide you with recommended ballast weights and fixings to ensure that your installation is well secured in high winds, plus an insurance backed 15 year guarantee!



SLAB

PLEASE NOTE
SYSTEM DOES NOT INCLUDE
SOLAR PANELS



CONCRETE

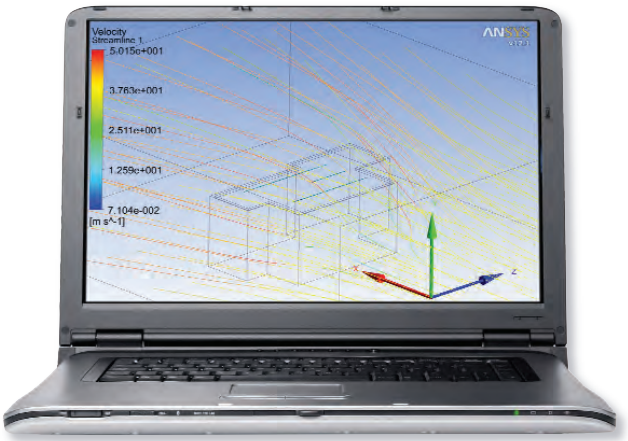
CFD explained

A brief explanation of what CFD (computational fluid dynamics) is and how it is used by Big Foot Systems.

Big Foot Systems are currently using ANSYS Fluid Flow CFD Software to calculate the wind load conditions on all our solar panel support designs. CFD produces a complex mathematical geometric model to analyse fluid flow (water, air etc) – the software makes geometric calculations based on a solid mesh. This mesh is made up of what are called elements and nodes that make up the geometry (in calculation form).

The user then applies the specific wind speed from BRE Digest 489 and in accordance with EUROCODE BS EN 1991-1-4:2005 to the meshed model and the computer calculates the reaction forces at every element and node (which can be up to and above one million calculations).

The user can then extrapolate the resultant X, Y and Z forces applied to the model of interest (in this case solar panels). The user then uses trigonometry formulae and a force vector diagram to calculate how much ballast weight is required and in which areas to retain the solar installations stability under the area wind conditions on the roof.



CFD SOFTWARE

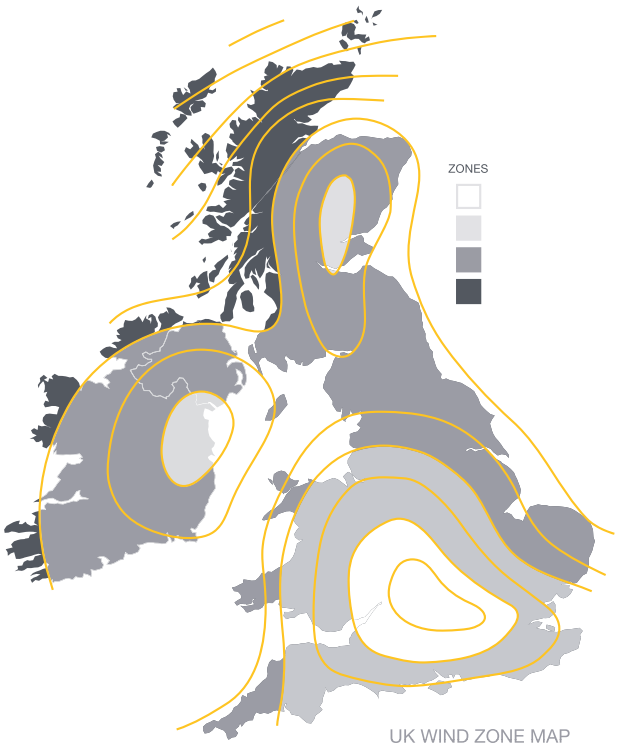
Key points

Utilising industry standard CFD software (ANSYS)

Ballast calculated using local wind speed map as per BRE Digest 489

Full system modelled including proposed building layout

Safest, fastest and most cost effective way of calculating ballast



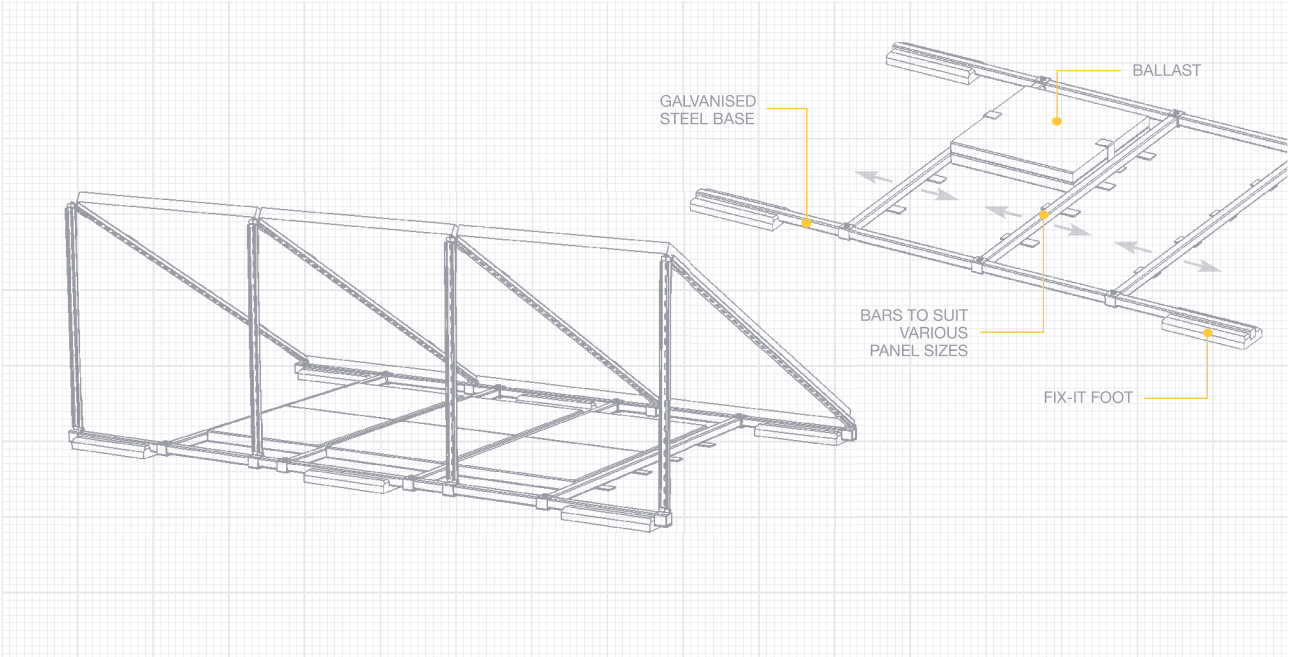
UK WIND ZONE MAP

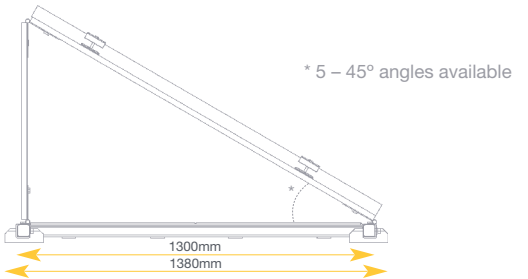
Slab ballast support system

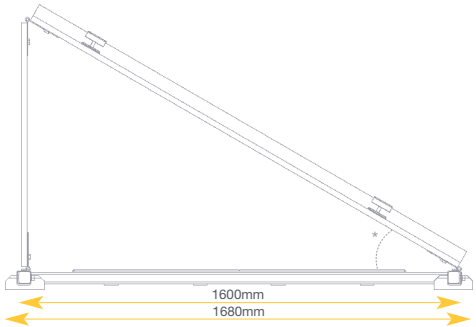
Big Foot slab ballast frameworks provide a quick to install solution using standard 40kg paving slabs as ballast. Utilising the Big Foot Fix-it feet, this modular system is very versatile with its installation options.

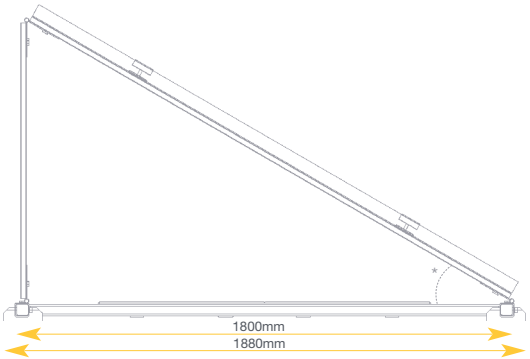
Available in various sizes, angles and heights, the slab frameworks can be adapted to almost any installation and for as many panels as the customer requires.

The hot dipped galvanised steel frameworks are to Safety Standard BS EN ISO 1461:1999 for maximum corrosion resistance for all year round intense weathering and extreme storm conditions.









Key points

Versatile, modular framework available in various sizes

Quick to install

Ideal for complex roof layouts

48hr design service

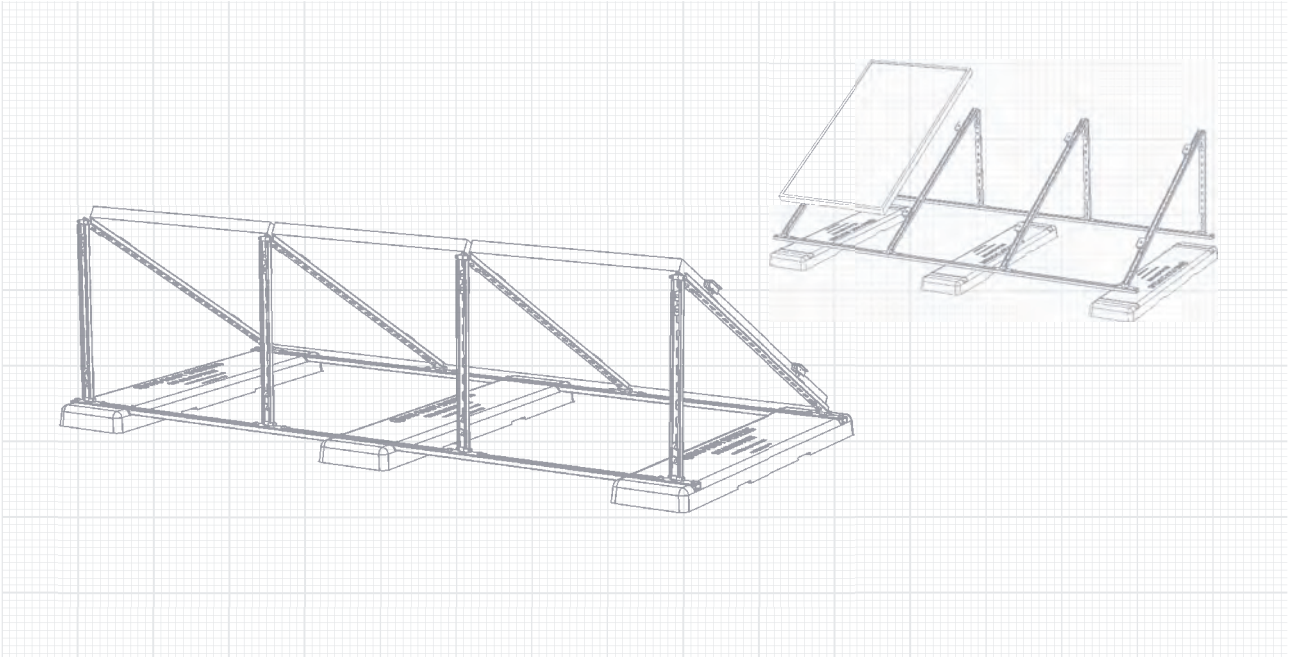
Off the shelf supply

Concrete ballast support system

The Big Foot concrete ballast framework is an extremely quick to install solar panel solution. Incorporating the ballast into the framework means this system is very simple and easy to install.

Weighing 80kg per ballast support and with a large surface area, this solution is ideal for roofs with lower strength or slippery surfaces. This type of frame also lends itself to non-permanent ground installs.

The hot dipped galvanised steel frameworks are to Safety Standard BS EN ISO 1461:1999 for maximum corrosion resistance for all year round intense weathering and extreme storm conditions.



Key points

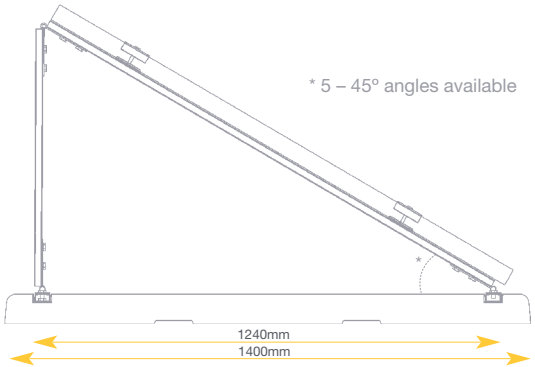
Extremely fast to install

Just 3KN/m^2 per ballast

Ideal for large runs of panels on roofs or non permanent ground installations

48hr design service

Off the shelf supply



Enquiry form

Contact details

Contact name: .....

Company name: .....

Address: .....

.....

Postcode: ..... Telephone no: ..... Email address: .....

Panel details

Panel quantity: ..... Panel size (L) x (W) x (D): .....

Panel array preference (e.g. straight line / bank of two rows etc.): .....

..... Angle: .....

Orientation: landscape ☐ portrait ☐ Manufacturer / model: .....

Building details

Building roof height: ..... Roof pitch: .....

Site location (town / county / postcode): .....

Roof build-up / waterproofing membrane: .....

.....

Roof drawing?	yes ☐	no ☐	New access through roof proposed?	yes ☐	no ☐
Structural limitations?	yes ☐	no ☐	New pedestrian access platform to roof required?	yes ☐	no ☐
Roof space restrictions?	yes ☐	no ☐	Specific height off roof required?	yes ☐	no ☐

Further information:

Additional notes:

- The panel(s) location, aspect, weather, shade and tilt should all be considered as they may affect the panel(s) performance.
- Big Foot Solar Systems can be assembled very rapidly at approximately 8 meters per hour based on two people installing.
- Big Foot Solar Systems takes no responsibility for the condition of the roof on which our equipment is to be used. You must ensure that the substrate on which the Big Foot is intended for use is structurally sound enough to take the weight and point loadings we have indicated. All Big Foot products must be installed in line with the guarantees and recommendations of the manufacturer of the roofing system. The manufacturer of PVC membranes should advise on the susceptibility to migration of plasticizers and specific recommendations should be adhered to so that the roof guarantee is not affected.

BIG FOOT SYSTEMS

APEX WAY HAILSHAM
EAST SUSSEX BN27 3WA
UNITED KINGDOM
T +44 (0)1323 844 355
SALES@BIGFOOTSYSTEMS.CO.UK
WWW.BIGFOOTSYSTEMS.CO.UK

SB8104 BIG FOOT 2/11