

**INSPIRED BY NATURE,  
REVOLUTIONISED BY SUREFOOT**



**SUREFOOT™**  
CONCRETE FREE FOOTING SYSTEM





# SUREFOOT SYSTEMS & ACCESSORIES

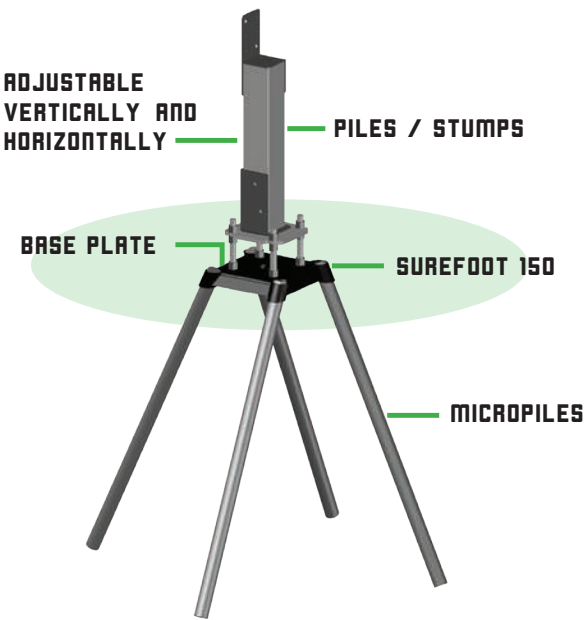
## THE SUREFOOT PRINCIPLE

Surefoot’s engineering principles are based on a combination of shallow and deep foundation design methodology. It uses the theory of bearing capacity of a shallow foundation, plus the skin friction and toe resistance of a deep foundation in all soil types through a fully certified footing design. Micro piles are driven with a jackhammer. The footing has instant capacity and does not disturb the ground, therefore affording tremendous efficiency of time, labour, material and project cost.

Low cost, time saving, high strength & instant bearing capacity- Surefoot pile cap mimics a tree’s root system through a series of steel micro piles in a battered array, resolving foundations at relatively shallow depths and efficient transfer of load and uplift forces with minimal soil disturbance.

## SUREFOOT VS CONCRETE

	SUREFOOT	CONCRETE
Fixed costs	✓	
Excavations required		✗
Dirt or spoil removal off site or relocation on site		✗
Engineering inspection required		✗
Concrete pump required		✗
Propping materials for setting up posts		✗
Gravel for bottom of post holes		✗
Instant bearing capacity of foundations so your works can continue same day	✓	
Workplace health & safety risk	LOW	HIGH
Total installation time	SHORT	LONG
Rain delays - post holes full of water		✗
Number of trades and materials required to organise	2	UP TO 10
Access issues for machinery & materials		✗
Environmentally friendly	✓	
Reestablishment of landscape required		✗
Adjustable in both plumb & level after your foundation is installed	✓	



## SUREFOOT FOOTINGS ARE

- High strength
- Simple
- Cost effective
- Quick to install
- Minimal soil and site disturbance
- Recyclable and reusable
- Suitable for large floor spans of up to 4m
- Suitable in cyclonic regions
- Ideal for remote areas and difficult terrain
- Backed by our technical support team
- Independently tested to ASTM piling standards
- Green solution for low carbon footing system
- Ability to support various types of loading such as compression, uplift, lateral loads and bending moments
- Suitable in any penetrable soil such as sand, silt, clay, fine gravels and even sedimentary rock





## SUREFOOT RESEARCH DEVELOPMENT AND TESTING

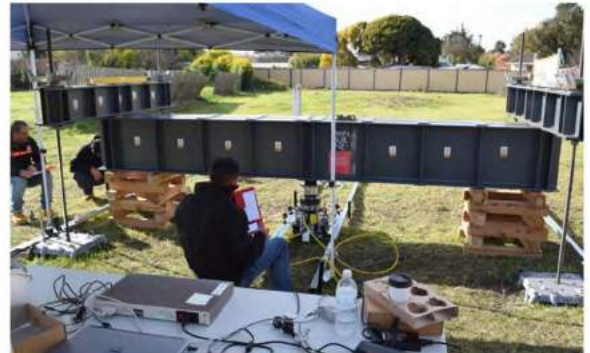


### SUREFOOT SUPERIOR BY DESIGN

Surefoot's high strength & instant bearing capacity-Surefoot pile cap mimics a tree's root system through a series of steel micro piles in a battered array, resolving foundations at relatively shallow depths and efficient transfer of load and uplift forces with minimal soil disturbance.

Surefoot's engineering principles are based on a combination of shallow and deep foundation design methodology. It uses the theory of bearing capacity of a shallow foundation, plus the skin friction and toe resistance of a deep foundation in all soil types through a fully certified footing design.

The 'all-in-one' steel footings, are specifically designed to increase its efficiency when resisting gravity, uplift, shear and moment loads.







COST SAVINGS

SUSTAINABLE

TIME SAVER

NO HEAVY EQUIPMENT

QUALITY MATERIALS

“Surefoot’s aim is to inform all industries that there are better, faster, cleaner and easier alternatives than using concrete.”

## T150

Residential

**Bolting pattern:**  
147 mm x 3 x 16mm holes

**Micro Piles:**  
3 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe Light, Medium, Heavy

**Load capacity:**  
Up to 25kN

**Average installation time:**  
10 minutes approx



## SF250-4w

Residential

**Bolting pattern:**  
140 centres x 4 x 22 slotted holes

**Micro Piles:**  
4 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe - 4mm wall

**Load capacity:** Up to 110kN

**Average installation time:** 10 minutes

**Micropile direction configuration option:**  
2 way, 3 way, 4 way



## SF250-6w

Residential

**Bolting pattern:**  
140 centres x 4 x 22 slotted holes

**Micro Piles:**  
6 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe - 4mm wall

**Load capacity:** Up to 150kN

**Average installation time:** 15 minutes



## SF400-6w

Residential

**Bolting pattern:**  
198-250 PCD x 4 x 22mm holes  
300-350 PCD x 4 x 26mm holes

**Micro Piles:**  
6 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe - 4mm wall

**Load capacity:** Up to 160kN

**Average installation time:** 15 minutes



## SF400-8w

Residential / Commercial

**Bolting pattern:**  
198-250 PCD x 4 x 22mm holes  
300-350 PCD x 4 x 26mm holes

**Micro Piles:**  
8 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe - 4mm wall

**Load capacity:** Up to 200kN

**Average installation time:** 20 minutes



## SF400-12w

Commercial

**Bolting pattern:**  
198-250 PCD x 4 x 22mm holes  
300-350 PCD x 4 x 26mm holes

**Micro Piles:**  
12 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe - 4mm wall

**Load capacity:** Up to 250kN

**Average installation time:** 25 minutes



## SF500

Commercial

**Bolting pattern:**  
233-300 PCD x 4 x 22mm holes  
350-400 PCD x 4 x 26mm holes

**Micro Piles:**  
12 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe - 4mm wall

**Load capacity:** Up to 300kN

**Average installation time:** 30 minutes approx



## SF600

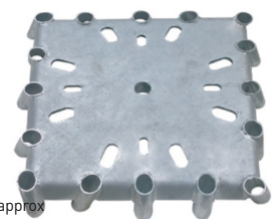
Commercial

**Bolting pattern:**  
350-400 PCD x 4 x 26mm holes  
432-500 PCD x 4 x 32mm holes

**Micro Piles:**  
16 x 32NB (Nominal Bore) 42.4OD  
Galvanised Pipe - 4mm wall

**Load capacity:** Up to 360kN

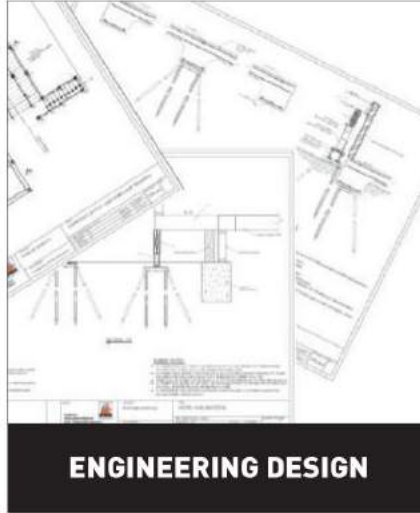
**Average installation time:** 40 minutes approx



Surefoot load capacities are indicative and are dependent on soil type and pile embedment depth, for specification, please contact Surefoot directly.



**SOIL TEST**



**ENGINEERING DESIGN**



**PLACE SUREFOOT LEVEL**

## SUREFOOT SYSTEM SIMPLE INSTALL



## SUREFOOT COMPONENTS

1



**Surefoot footing baseplates.**  
50, 75, 150, 300, 500, 600

2



**32NB Galvanised pipe**  
Light, medium, heavy

3



**Galvanised pipe is jack  
hammered into the baseplate**

5



**4 X M20 - 8.8 grade nuts,  
bolts, and washers**

6



**Adjustable universal  
base bracket**

7



**Steel stump**  
75 x 75 / 90 x 90 / 100 x 100  
SHS or timber stumps





**JACK HAMMER MICRO PILES**



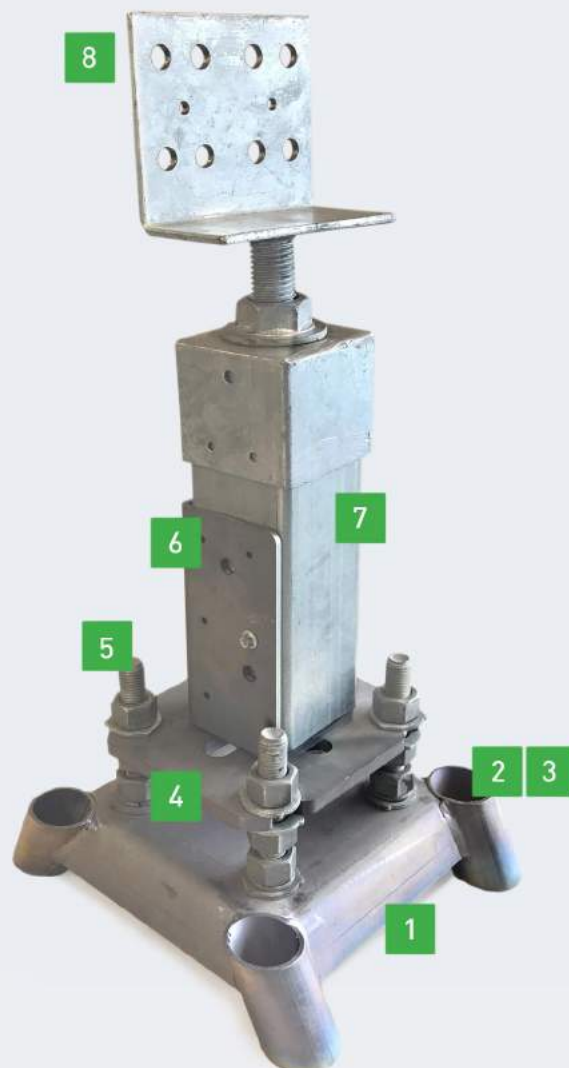
**ADD BASE PLATES**



**PLACE SYSTEM**



## FULLY & SEMI ADJUSTABLE

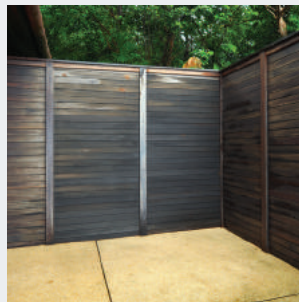




- Housing - ideal for sloping sites
- Prefabricated structures
- Modular construction
- Decking
- Pergolas
- Fencing
- Sheds
- Carports
- Shade structures/ sails
- Playground equipment
- Green building
- Temporary structures



- Deck footings
- Shade sails
- Umbrellas
- Fences
- Backyard sheds
- Light poles
- Stock yards
- Remedial work
- Retaining walls & sound barriers
- Light poles







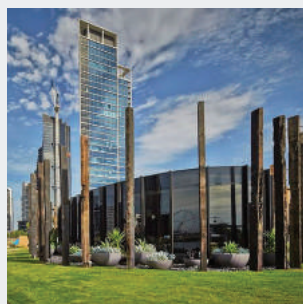
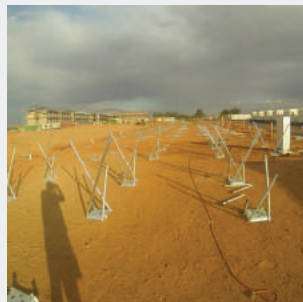
# COMMERCIAL

- Commercial construction
- Portal frame construction
- Civil construction
- Concrete slab support
- Suspended floors/ slabs
- Cyclonic tie downs
- Stabilisation
- Boardwalks and jetties
- Bus shelters
- Bridges
- Winch points



# CIVIL

- Defence industry
- Mining industry
- Energy industry
- Signage, banner & flag industry
- Communication industry
- Tethering industry
- Event industry
- Renewable energy, solar & wind farms
- Renovations
- Underpinning
- Restricted access sites







# HOUSING

- No mess, no soil is being removed
- Fast Install - less than 10 minutes per pile. Then ready to use.
- No excavating or specialist machinery onsite.
- Any trades person can install
- Sustainable and Green. Removable if required
- Significant advantages over timber and concrete or screw piles
- 6 Surefoot pile cap models (patented design) support any structure
- 'Tree root' bearing capacity of the soil around the micropiles creates significant strength
- Specialist building solution for foundations in all soil types
- Lifespan for 50 years - likely to have 50-120 year lifespan. (600 g/m2 HDG)
- Surefoot have a number of different connection details enabling all structures to be secured







# HOUSING

The 'all-in-one' steel footings, are specifically designed to increase its efficiency when resisting gravity, uplift, shear and moment loads. Surefoot pile foundations can be used on a wide range of projects, meeting all New Zealand and Australian compliance and regulations. Each Surefoot is project specific and designed according to each site geotechnical soil conditions and specific loadings by our in house engineers.

Surefoot Systems has to date completed just on 20,000 projects and 8 years operation in Australia and has had been tested in New Zealand with significant results in difficult soil types.







DESIGN IS THE TOOL  
THAT ENHANCES OUR HUMANITY

## CONTACT

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