



Metal Design Group Pty Ltd

groundscrews.com.au

GROUND SCREWS AUSTRALIA



MODERN FOUNDATION CONSTRUCTION

efficient · no concrete · durable

MODERN FOUNDATION CONSTRUCTION WITH GROUND SCREWS

efficient · no concrete · durable

The best ideas are those that are simple to apply and also function easily. **Easily the best**, if you will. With its ground screws, Ground Screws Australia has been revolutionising foundation construction for almost fifteen years now.

Doing without an arduous process of excavation, concreting and refilling, we simply use the screw concept.

The lateral displacement of soil and the ensuing compaction make for utmost stability, statically verified (here exemplified by an E-series ground screw).

1 ROUND POST (CHS):

Easy adjustment after insertion into the ground screws. This will always ensure a perfectly plumb position. Larger pole diameters and loads will be installed by means of flange plates on the ground screw.

2 CONICAL BODY:

Serves as guide for posts to be inserted, and for initial vertical positioning.

3 FIXING:

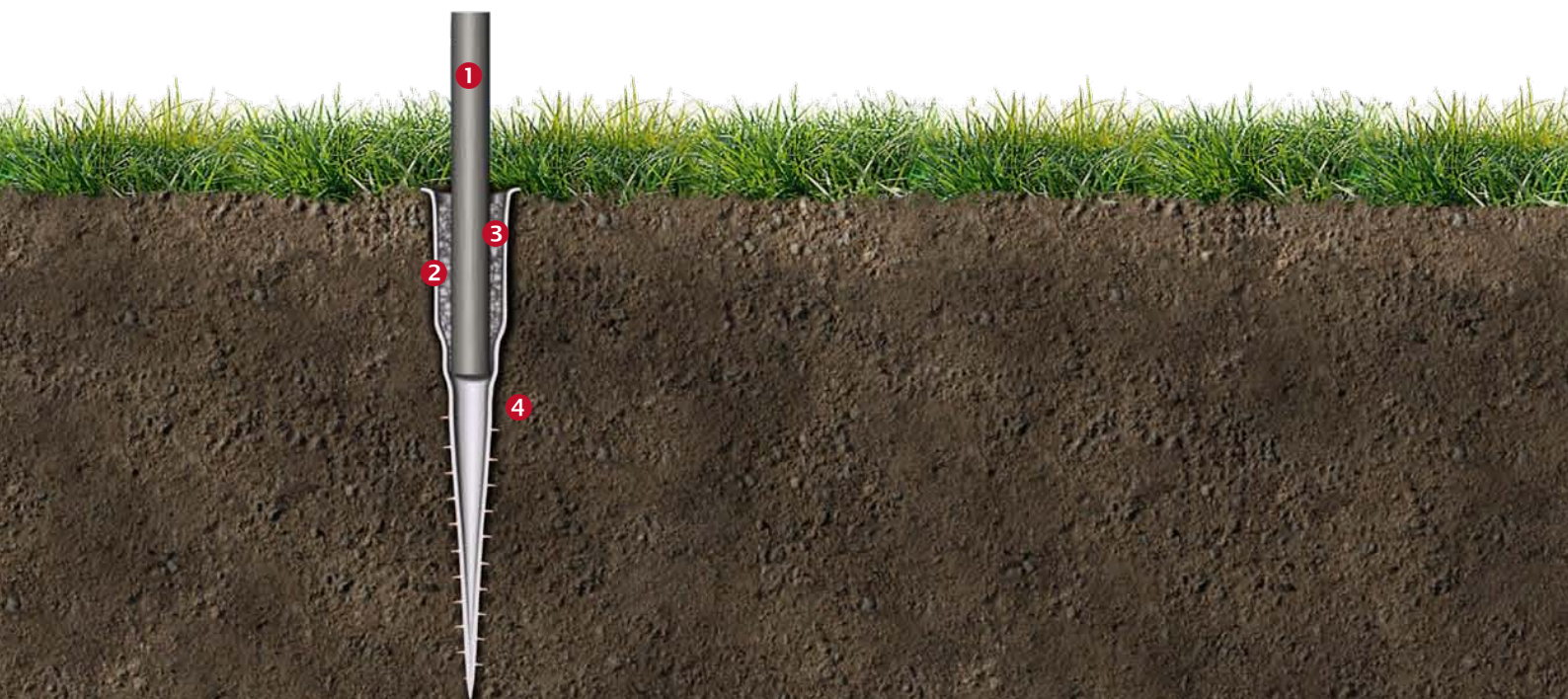
The post will be centred & fixed with sharp edged gravel (cracker dust), fixing bolts, or our patented excentre system.

4 SOIL:

Is compacted by the ground screw during installation, providing the required in-ground stability. No soil has to be excavated and removed.

THE GROUND SCREWS:

Made of S350 steel, continuous welded thread, and hot dipped galvanized.



This versatile system saves time and money, goes easy on resources and provides new opportunities for an innovative design. Its worldwide success attests to and rewards the company's courage in challenging what seemed to be an iron clad law of architecture, i.e. a foundation has to be constructed of concrete.

The pros at a glance:

- Cost and time savings
- No digging, no concreting
- Tested & certified by Australian Structural Engineers, in compliance with Australian Standards & The Building Code of Australia
- Proven high compression, tension and lateral loads
- Utmost stability and durability
- Instantly loadable, no waiting period
- Sustainable and environmentally friendly
- No surface sealing required
- Surroundings not impacted
- Easy de-construction and instant relocation



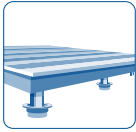
FAST, EFFECTIVE AND SAFE

Ground screw solutions for your foundation



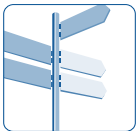
Be it a traffic sign or a marquee, a carport or large event hall, new homes or extensions, flagpoles, fences or huge billboards: Our simple foundation idea provides plenty of opportunities.

Our ground screw's utmost stability, fast installation (a matter of minutes) and guaranteed safety, even when subjected to the strongest winds and vertical loads, are indeed compelling.



TIMBER & STEEL FRAME HOUSE CONSTRUCTION

Ideal for sustainable, efficient and long-term timber and steel construction projects



ADVERTISING AND SIGNAGE TECHNOLOGY

An attractive and cost-efficient alternative, thanks to an uncomplicated and fast installation.



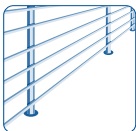
URBAN GARDEN AND LANDSCAPE CONSTRUCTION

An ideal and modern solution, both in environmental & economic terms



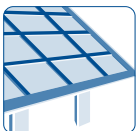
SHED AND CONTAINER CONSTRUCTION

Flexible, economic, efficient, fast & relocatable: modern construction at best



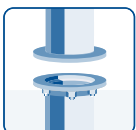
FENCES

The ideal solution for permanent & temporary fencing and for any terrain: fast, secure and professional



SOLAR PV & THERMAL INSTALLATIONS

A durably environmentally friendly and cost-saving technology: the perfect foundation for solar ground mount installations



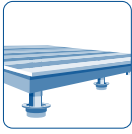
FASTENING SOLUTIONS

The right aid for all situations – at any time



INSTALLATION EQUIPMENT

A variety of machines and effective solutions, optimising the installation process in a professional and project tailored manner



TIMBER-FRAME CONSTRUCTION

ecological · no concrete · professional

Carport:
10 ground screws
E89x1000-E60



Fig tree deck, Wollongong Uni

If you are building with timber, you have already opted for a sustainable construction solution. So the next step, opting for ground screws, is a logical one.

The surroundings are not impacted, there is no soil sealing, and logistics kept to a minimum. Why not make use of the many advantages our state-of-the-art foundation construction technology provides?

Exemplary solutions and applications:

- Decks & terraces
- Carports
- Shelters
- Noise barriers
- Timber frame houses
- Footbridges and boardwalks
- Sports and play equipment
- Fences
- Pergolas/pavilions
- Timber sheds & cabins



Pedestrian bridge / Boardwalk

ADVERTISING AND SIGNAGE TECHNOLOGY

effective · no concrete · durable



Advertising sign BMW
6 ground screws
M 114x1600-M24

Saving time and costs, will result in larger client base and increased profits. Faster and unproblematic installation has a huge saving potential, and at the same time environmentally friendly.

Another advantage is that the uncomplicated installation permits new and innovative locations and re-locations fast & easy.

Exemplary solutions and applications:

- Advertising pylons
- Big screen advertising
- Flagpoles
- Perimeter advertising
- Construction signs
- Traffic control systems
- Traffic lights
- Sign gantries
- Motorway signage
- Noise barriers
- Warning signs etc.
- Traffic signs (as set forth in traffic regulations)
- Reflector posts



HITACHI Pylon Sign
Muswellbrook NSW



Road and traffic signage



URBAN, GARDEN AND LANDSCAPE CONSTRUCTION

economical · no concrete · flexible

Bicycle shed (900 m²)

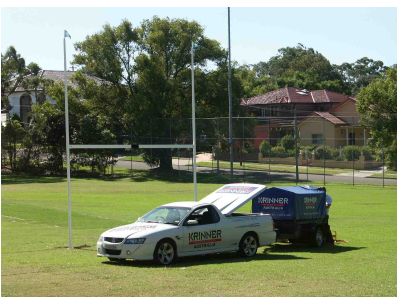
86 ground screws
M 76x1200-M24



Playground, Bronte - Sydney

A fast, safe and ecological optimisation of the townscape and cost savings too: Construction projects using ground screws allow targeted construction without construction sites, excavations and concreting. This means huge time savings on such projects and thus also a citizen-friendly construction policy.

Exemplary solutions and applications:



Goal posts, Ryde City Council

- Bus shelters/benches
- Barriers
- Parking meters
- Street lights
- Guardrails
- Barrier systems
- Solar lamp posts
- Noise barriers and screen walls
- Awnings/shading systems
- Protective and event equipment
- Playground equipment
- CCTV and surveillance systems
- Greenhouses
- Industrial and security fences
- Wire-mesh fences
- Ball-catch systems

SHED AND CONTAINER CONSTRUCTION

safe · no concrete · uncomplicated



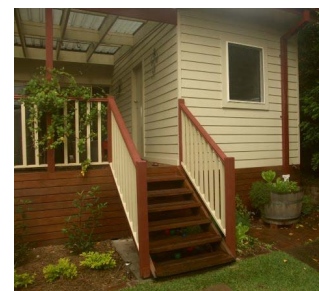
Pre fabricated dwelling:
24 ground screws
M 89x1600-M24

Foundation construction depth of up to 3.5m and the ground screw's massive bearing capacity also allow the construction of large buildings in a fraction of conventional construction time.

Be it containers or prefab homes, all foundations are tested and engineer certified according to Australian Standards as well as National & State prescribed Building Codes.

Exemplary solutions and applications:

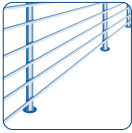
- Production and storage sheds
- Mining camps & cyclone tie downs
- Equipment and car sheds
- Timber and steel sheds
- Exhibition buildings
- Event and stage construction
- Marquees & shade sails
- Large screens
- Glass- and greenhouses
- Construction containers
- Office containers
- Prefab homes, cabins & garages



House extension, Sydney



3 bed room granny flat
St Marys, Sydney



FENCES

secure · no concrete · fast

Industrial fence:
Ground screws
E 90x800-E60



Timber fence



Wire mesh fence

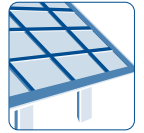
Be it garden, sport field, industrial or high-security fences, permanent or temporary fencing: Ground screws provide solid footings for all types of fences, no matter how flat, hilly or rocky your property might be.

Exemplary solutions and applications:

- Industrial fences
- Construction fences
- Wire-mesh fences
- Ball-catching fences
- Garden fences
- Safety fences
- Security fences

SOLAR GROUND MOUNT INSTALLATIONS

modular · no concrete · environmentally friendly



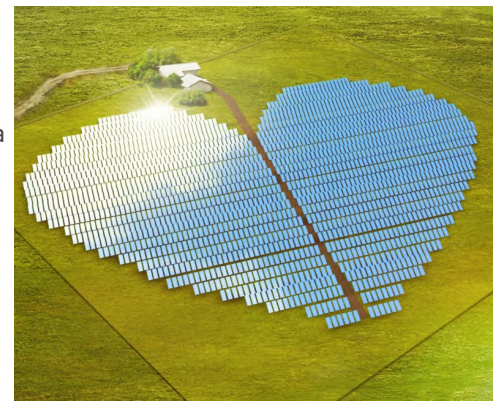
Screw Foundations
for ground mounted
PV & solar thermal projects.
For all types of fixed,
as well as tracked
mounting systems

Screw foundations are ideally suited for solar power systems. Due to the quantity of footings required, conventional footing methods are not the most economical option. No civil works are required as our ground screws will follow the contours of the land.

Ground Screws Australia has been installing solar ground mount systems in Australia and Pacific Region since 2006 and are considered the leading experts in the field.

Exemplary solutions and applications:

- PV ground mount installations, System 'TRACYCLONE F III'
- PV ground mount installations, 'Clenergy ST III A' & other systems compliant with AUSTRALIAN STANDARDS
- PV solar tracking system
- CSP (concentrated solar power) installations
- Fences for all types of solar ground mount projects



Our 2 MW 'Heart of New Caledonia'
The most attractive solar farm worldwide!

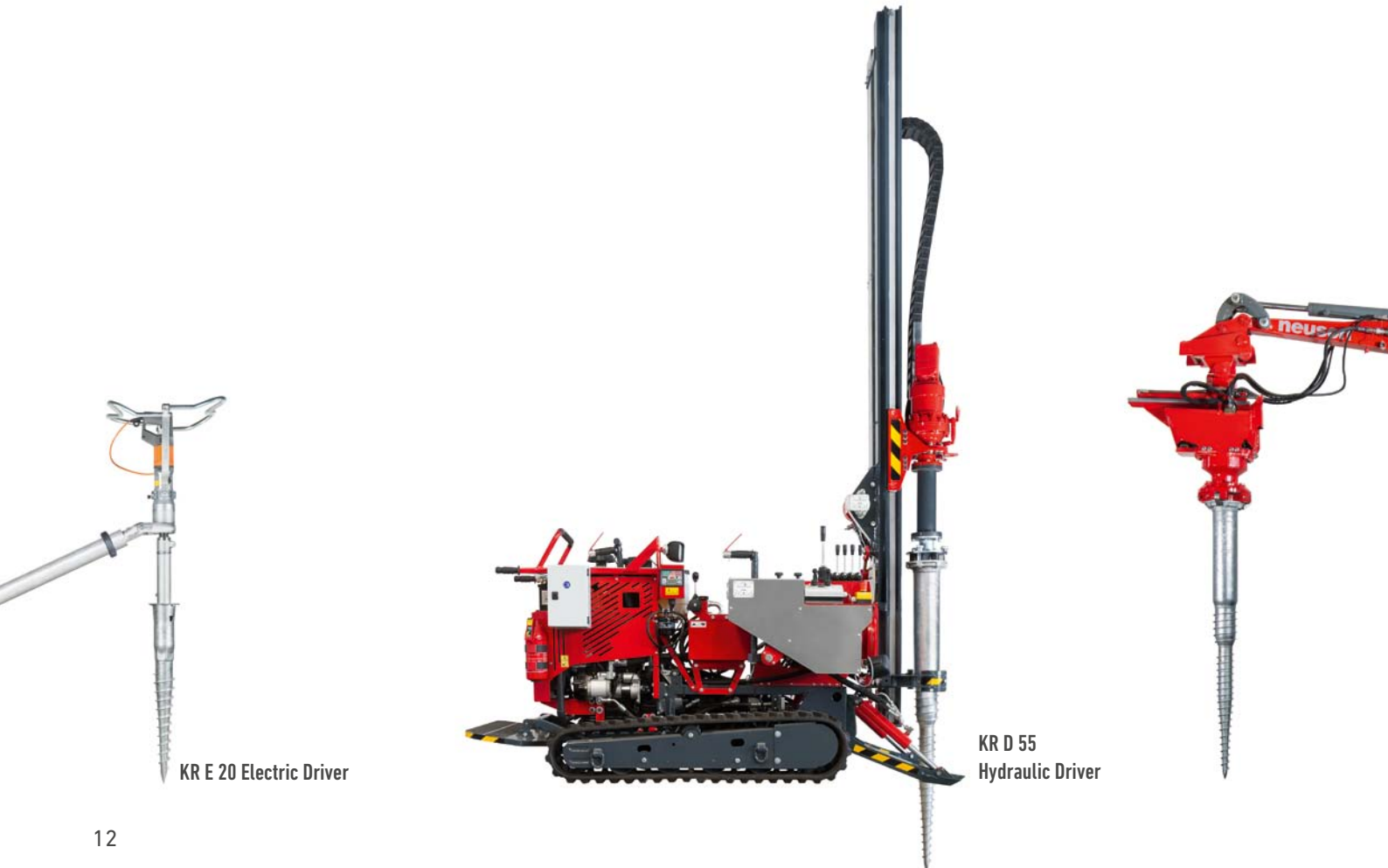


9 MW solar thermal farm, Liddell NSW



INSTALLATION EQUIPMENT

precise · user-friendly · safe



KR E 20 Electric Driver

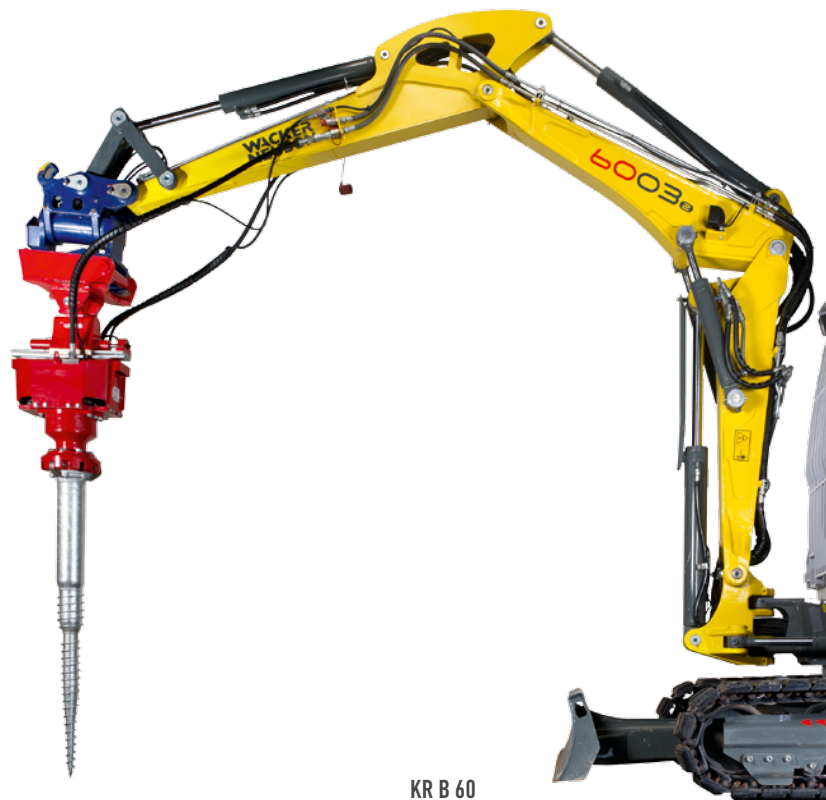
KR D 55 Hydraulic Driver



We have developed installation machines and equipment to install ground screws fast and precise in all ground types, from loose / sandy soil to solid rock. Ground Screws Australia provides effective solutions and the required tools to optimise ground screw installation. From project advice and planning, to engineering certification. Your one - stop shop for screw foundations!



KR B 40



KR B 60



FASTENING SOLUTIONS

versatile · secure · productive

For all applications the right accessories for a fast and effective use.

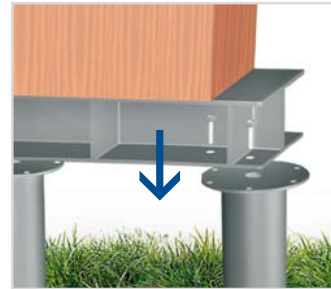
We have the right accessories even for the most unusual foundation work.

Geared to general and individual needs.



CONICAL SHAPE/GRAEL:

Tapered foundations made of special plastic for highest stability and long service life for fences and sign posts.



TIMBER BEAM SUPPORT:

Modular, for use with flange plates for the respective structural loads.



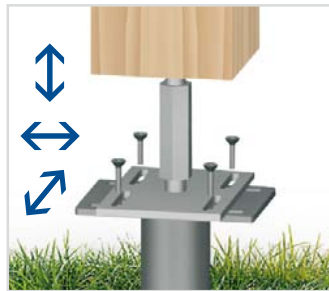
FIXING BOLTS:

Four metric threaded nuts on the neck for quick fastening.



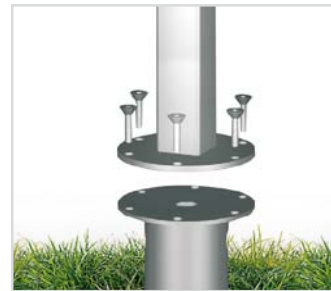
U-FIXING:

Fast & easy fixing of bearers & posts with ample adjustment in U-saddle.



POST SUPPORT:

Adjustments in all directions, including height adjustment.



FLANGE PLATES:

Modular fixing with flange plates, for the respective structural loads.



FOUNDATION COVER:

Precise to the point fixing of timber beams & variable height compensation.

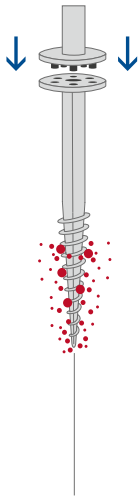


ECCENTRIC ADJUSTMENT:

Perfectly plumb positioning with resonance and vibration free mounting.

STATICS

perpendicular · safe · permanent

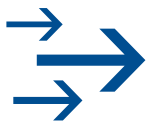


MODULAR:
Modular use with flange plates, geared to the respective static loads

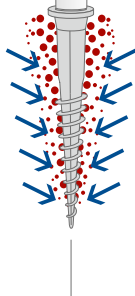


FAST:
The newly developed ground screw system reduces installation times by 30%

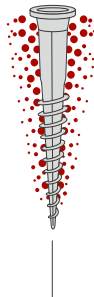
PERPENDICULAR:
Perfect adjustment and perpendicular positioning with patented cam / excenter or gravel system



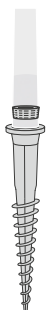
EXTREMELY STABLE



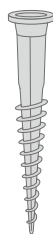
PERMANENT:
A specially developed patented production technology guarantees utmost durability and stability



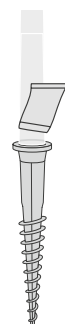
SAFE:
The ground screws' conical shape compacts the soil and guarantees stability and safety



INNOVATIVE:
The cam, a patented vernier adjustment system for a perfectly perpendicular position



ENVIRONMENTALLY FRIENDLY & RELOCATABLE:
Ground screws can be easily removed & relocated



FAST:
Posts can be set plumb and fixed in position fast and inexpensive using sharp edged gravel or cracker dust.



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