EARTH ANCHORING SYSTEMS

HULK EARTH ANCHORS

ABOUT US

About Anchoring Rope and Rigging

Anchoring Rope and Rigging Pty Ltd are market leaders in the provision of earth anchoring solutions used in a variety of engineered applications.

The introduction of HULK Earth Anchors ushers in a new era in percussion anchor technology. HULK is the result of the culmination of knowledge gathered over the last 35 years in the manufacture, design and installation of these systems. HULK is a technologically advanced range of products and its performance specifications surpass all of our previous products.

Designed, developed and manufactured in Australia for challenging southern hemisphere conditions HULK Earth Anchors are built extra tough to stringent Australian standards thereby guaranteeing safe products and consistent quality.

"Engineered Anchoring Solutions for Geotechnical and Structural Stabilisation"

Proudly manufactured in Australia by:

KOBELCO



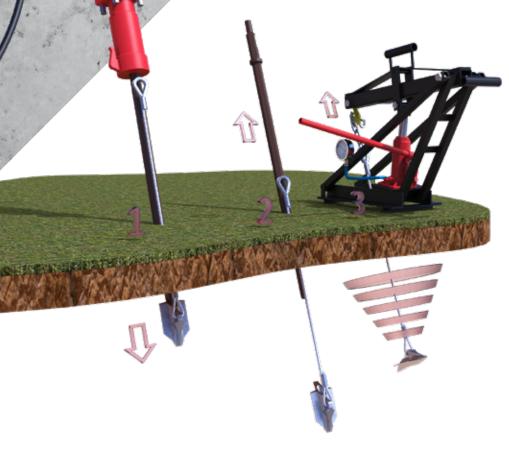


HULK EARTH ANCHOR ADVANTAGE

What is an Earth Anchor?

A HULK Earth Anchor is a geotechnical anchor designed for holding tensile loads. HULK Earth Anchors can also be referred to as ground anchors, mechanical anchors, or more specifically, percussion anchors, driven anchors, or tipping plate anchors.

HULK Earth Anchors are a revolutionary anchoring technology providing time and labour saving installations of anchored solutions. Working like toggle bolts in soil, HULK Earth Anchors are driven to their required depth after which an upward pull on the anchor tendon rotates the anchor head in the ground into a perpendicular anchor locked position. When using a HULK Proof Tester for anchor locking, the earth anchor is simultaneously tested to the desired holding capacity, allowing for an anchor installation of known holding capacity which is ready for immediate use.



The HULK Earth Anchor Concept

1) Drive the HULK Earth Anchor:

Using readily available, conventional tools and equipment, drive the HULK Earth Anchor into the ground with a reusable Hulk Smasher Rod.

2) Remove the Smasher Rod:

Once the HULK Earth Anchor is driven to the required depth, remove the HULK Smasher Rod.

3) Proof Test:

Anchor Lock the HULK Earth Anchor while simultaneously proof testing to the required capacity.

No Digging or Excavation!

HULK Earth Anchors are driven into the ground, not augered or torqued. No digging or excavation is required for installation, and no concrete or grout is required to set the anchor into position. As a result there is no disturbance, or displacement to the surrounding soil, providing a safe and environmentally friendly anchoring solution.

HULK Earth Anchor Advantages:

- Instant point of anchoring.
- No digging or excavation.
- Superior holding capacity.
- ▶ Fast, easy, and reliable installation.
- ► No soil disturbance.
- ▶ Proof tested during installation.

HULK EARTH ANCHOR MODELS

Dimensions:

Weight:

Material:



Typical Installation Depth:	U.6m to 1.2m	0.9m to 2.5m	TM to 2.5M	TM to 2.5M
Standard Assembly Options^: (Custom assemblies available on request)	 3mmØ Wire rope with soft eye 3mmØ Wire rope with open end Clevis to suit M6 threaded bars Accessories: Couplers; Nuts; Washers; Flat & Domed Bearing Plates; Eye Nuts Pre-assembled kits available for specialised applications 	 5mmØ Wire rope with thimble eye 5mmØ Wire rope with open end Clevis to suit M8 / M10 / M12 threaded bars Accessories: Couplers; Nuts; Washers; Flat & Domed Bearing Plates; Eye Nuts 6mm Chain and shackle Pre-assembled kits available for specialised applications 	 8mmØ Wire rope with thimble eye 8mmØ Wire rope with open end 8mm Chain and shackle Clevis to suit M10 / M12 / M16 / CTB16 threaded bars Accessories: Couplers; Nuts; Washers; Flat & Domed Bearing Plates; Eye Nuts Pre-assembled kits available for specialised applications 	 8mmØ Wire rope with thimble eye 8mmØ Wire rope with open end 8mm Chain and shackle Clevis to suit M10 / M12 / M16 / CTB16 threaded bars Accessories: Couplers; Nuts; Washers; Flat & Domed Bearing Plates; Eye Nuts Pre-assembled kits available for specialised applications

^Note: Contact your distributor or AR+R to discuss assembly options to suit your project.

*Note: Holding capacities are tendon and soil dependent.

Manufactured to the following Australian Standards: AS1831; AS4680 For further advice and technical information, contact your distributor or AR+R on 1300 692 626.

	HULK H110	HULK HG100	HULK HG180	HULK HG320
Dimensions:	Width: 110mm Height: 63mm Length: 160mm	Width: 100mm Height: 105mm Length: 341mm	Width: 180mm Height: 105mm Length: 341mm	Width: 320mm Height: 111mm Length: 444mm
Weight:	0.99kg	5.25kg	6.4kg	11.3kg
Material:	Ductile Iron TDG Galvanised	Ductile Iron TDG Galvanised	Ductile Iron TDG Galvanised	Ductile Iron TDG Galvanised
Mechanical Properties*:	Ultimate Strength: 75kN Yield Strength: 45kN	Ultimate Strength: 280kN Yield Strength: 175kN	Ultimate Strength: 280kN Yield Strength: 175kN	Ultimate Strength: 280kN Yield Strength: 175kN
Soil Bearing Surface Area:	126.6cm ²	298.96cm ²	487.76cm ²	1034.54cm ²
Typical Installation Depth:	1m to 1.2m	2.1m to 9m	2.1m to 9m	2.1m to 9m
Standard Assembly Options [*] : (Custom assemblies available on request)	 8mmØ Wire rope with thimble eye 8mmØ Wire rope with open end 8mm Chain and shackle Clevis to suit M10 / M12 / M16 / CTB16 threaded bars Accessories: Couplers; Nuts; Washers; Flat & Domed Bearing Plates; Eye Nuts Pre-assembled kits available for specialised applications 	 Wire rope to project specifications Chain assemblies to project specifications Clevis attachment to suit M24 / CTB20 / CTB25 rods Accessories: Couplers, Nuts, Washers, Flat & Domed Bearing Plates, Eye Nuts Pre-assembled kits available for specialised applications 	 Wire rope to project specifications Chain assemblies to project specifications Clevis attachment to suit M24 / CTB20 / CTB25 rods Accessories: Couplers, Nuts, Washers, Flat & Domed Bearing Plates, Eye Nuts Pre-assembled kits available for specialised applications 	 Wire rope to project specifications Chain assemblies to project specifications Clevis attachment to suit M24 / CTB20 / CTB25 rods Accessories: Couplers, Nuts, Washers, Flat & Domed Bearing Plates, Eye Nuts Pre-assembled kits available for specialised applications

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INSTALLATION METHODS

HULK Earth Anchors can be installed with a variety of light, medium and heavy installation equipment. Anchor size, installation depth and project specifics will determine the size of installation equipment required. All applicable power sources and plant are readily available from most plant hire companies.

HULK SMASHER RODS

We manufacture our HULK Smasher Rods from high quality impact resistant steels. They are available in a variety of combinations including Hand Smasher Rods, fixed length and extendable Power Smasher Rods, and have shank options for most types of powered installation equipment. HULK Smasher Rods are available in a variety of lengths from 0.9m up to 3m and various diameters.

A complete list of Smasher Rods and specifications is available on request.





Hand Install

Excavator Install



PT150 Proof Tester



ANCHOR LOCKING AND PROOF TESTING

To set the HULK Earth Anchor in the ground it needs to be Anchor Locked. This is achieved by pulling on the anchor tendon with HULK Anchor Locking equipment. The light duty anchor hook and medium duty anchor jack are guick and simple methods for activating small to medium HULK Earth Anchors.

The PT-45 and PT150 HULK Anchor Lockers are essential when installing HULK Earth Anchors in Light to Heavy installations to a specified load requirement. Designed to Anchor Lock and proof test simultaneously both can accommodate anchors installed vertically or at an angle to the ground. Anchor holding capacity is easily read on the calibrated gauge. Various attachments and fittings are available which allow attachment to different HULK Earth Anchor tendons.

"HULK EARTH ANCHORS 100% DRIVEN"

PT45 Proof Tester



HULK EARTH ANCHOR APPLICATIONS









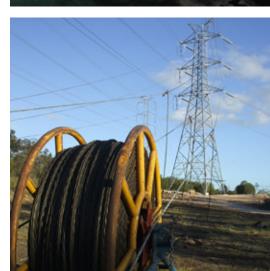


- Retaining Walls
- Marine Applications
- Buoyancy Control
- Bridges
- ► Temporary Works
- ► Guyed Structures
- Erosion Control
- Foundations
- Landfill Capping
- Rock Retention
- Slope Stabilisation
- ► General Security
- ▶ Drainage
- ► Sheet Piling
- ► Tunnel Linings
- Pipelines
- Portable Buildings
- Structures
- Gabion Support
- Scaffolding
- Shade Structures
- ► Tree Support
- Vineyards
- ► Orchards
- ► Hops
- ► Crop Protection
- Power Lines
- Telecom Poles
- Masts and Towers
- Wind Turbines
- Turf Reinforcement

For more information on how HULK can be used on your project, contact your distributor or AR+R on 1300 692 626.

"HULK CARRIES BULK"









ANCHORING ROPE AND RIGGING



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