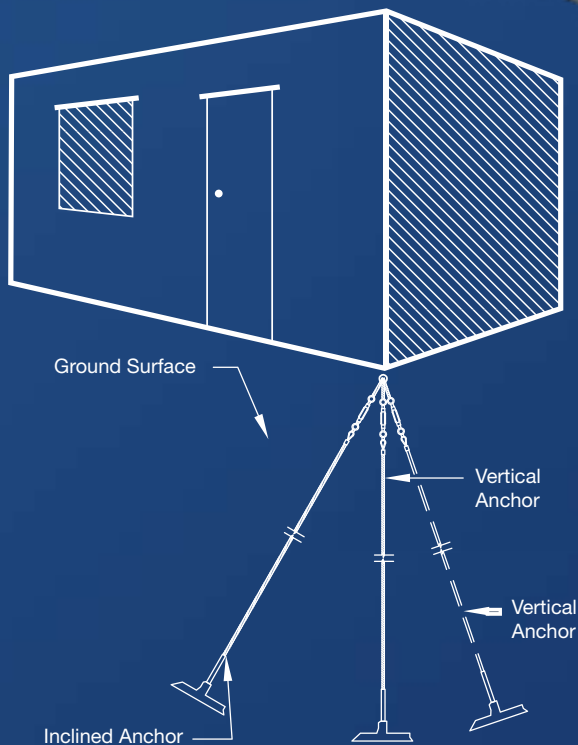


PORTABLE STRUCTURES EARTH ANCHOR SYSTEMS

CYCLONE PROTECTION

FLOOD PROTECTION

EMERGENCY TIE DOWNS



FEATURES

FAST, EASY INSTALLATION
LIGHTWEIGHT, PORTABLE EQUIPMENT
NO HOLE REQUIRED

BENEFITS

NO DIGGING, NO DAMAGE, NO MESS
NO SOIL DISTURBANCE
MINIMAL ENVIRONMENTAL IMPACT
SUBSTANTIAL TIME & COST SAVING
ANCHORS PROOF LOADED
TO EXACT CAPACITY

ANCOR LOC

WORLD LEADER IN EARTH ANCHORING SOLUTIONS

Ancor Loc Australia introduces **SERIES II DUCKBILL®** superior earth anchoring systems, innovative solutions to anchoring problems, and engineering and field services. Continuing to set the bar in earth anchoring innovation, Ancor Loc present the new **SERIES II DUCKBILL®** Earth Anchors which are patented worldwide.

DUCKBILL® Earth Anchors are manufactured from aluminum alloys to provide strength and durability. For hard or rocky soils, these superior anchors are available in galvanized ductile iron. For highly corrosive environments, **DUCKBILL®** anchors can be fabricated with stainless steel wire rope, plastic impregnated wire rope or other corrosion-resistant solutions.



NO DIGGING, NO EXCAVATION, NO SOIL DISTURBANCE

SAVE TIME AND LABOUR

Fast and easy installation the patented **DUCKBILL®** Anchors work like toggle bolts in the soil.

NO HOLES, NO DIGGING AND NO CONCRETE

DUCKBILL® Anchors are driven into the ground and provide a safe and environmentally sensitive installation.

PERPENDICULAR "LOAD LOCK" IN UNDISTURBED SOIL

An upward pull on the Duckbill anchor rotates the **DUCKBILL®** Anchor tendon into position.

SAFE, STRONG, LIGHTWEIGHT AND ECONOMICAL

DUCKBILL® Anchor systems offer the most effective and easy to install solutions to any anchoring application, large or small. Anchors can be load tested immediately after installation to exact holding capacity.

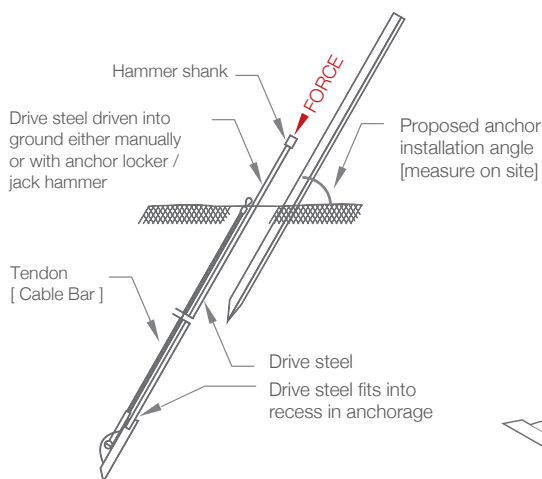
PORTABLE STRUCTURES [DEMOUNTABLES] ANCHORING SYSTEMS

Ancor Loc's earth anchor provides a labour and time saving anchoring system, that works like a toggle bolt in the soil. Ancor Loc's DUCKBILL® and Manta Ray Anchors have been used for over 30 years worldwide.

They are driven into the ground, providing a safe and environmentally sensitive installation.

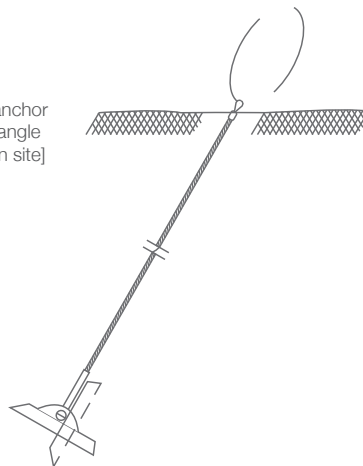
Anchor installation can be immediately load tested after installation. Our system is fully load rated and allows for lock of loads to be applied in case of storms, floods or cyclones, the load is sent directly to the anchor head to prevent movement.

HOW ANCHOR SYSTEMS WORK DRIVE INTO THE GROUND



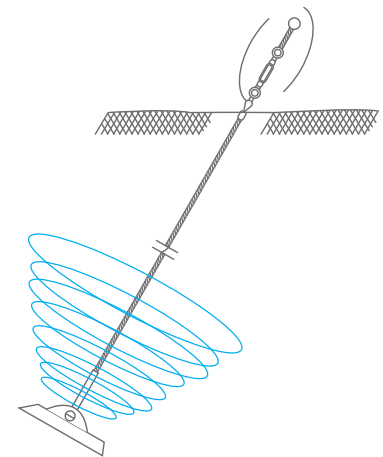
ANCHOR INSTALLATION

Drive anchor into the soil using a hammer and drive steel rod (a small jack hammer can also be used with power drive steel).



ANCHOR IN LOAD LOCK POSITION

Load anchor. Remove Drive Steel once anchor is at the proper depth. Pull up on wire rope to set the anchor in the soil.



ANCHOR CONNECTION TO STRUCTURE

Set "Load lock" with an upward pull on the wire rope to rotate the anchor into a perpendicular position.

AUSTRALIAN STANDARDS COMPLIANCE

OUR SYSTEM IS THE ONLY TIPPING PLATE ANCHOR SYSTEM THAT CONFORMS TO THE REQUIREMENTS OF:

- ✓ AS4678 - 2002 : Earth retaining structures
- ✓ AS1726 - 1993 : Geo-technical site investigations
- ✓ AS3600 - 2009 : Concrete structures
- ✓ AS/NZ 1170 - 2002 : Structural design actions (part 0 : General principles)
- ✓ AS/NZ 1170.1 - 2002 : Structural design actions (part 1 : Permanent, imposed and other actions)
- ✓ AS/NZ 1170.12 - 20011 : Structural design actions (part 2 : Wind actions)
- ✓ ISO/DIS 224477 - 5 : Geo technical investigation and testing -
- ✓ TESTING OF GEO-TECHNICAL STRUCTURES - part 5 testing of anchorages, 2005

IDEAL FOR PORTABLE STRUCTURE SUPPORT

Portable buildings
Caravans
Tents
Fences
Vineyards

Playground equipment
Cyclone prone areas

Scaffolding
Structures
Pipeline
Sheds
Utility Pole
Towers
Signs
Antennas



WHERE TO USE LOCATIONS

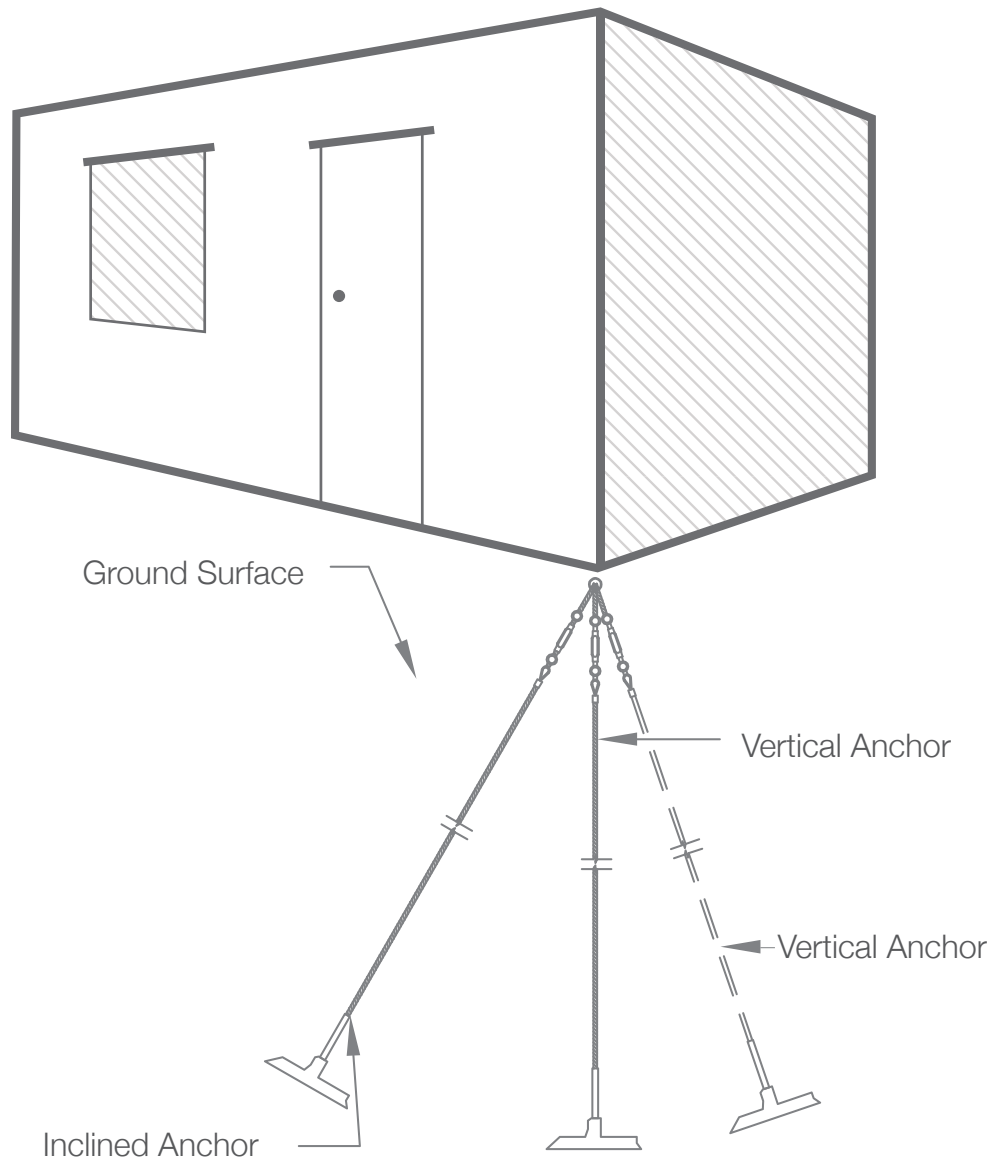
BUILDING/
CONSTRUCTION
MINE SITES
HOME SITES
CARAVAN PARKS
DISPLAY BUILDINGS



Straining kit



Ratchet Tensioner



DUCKBILL® ANCHORS OFFER SIGNIFICANT ADVANTAGES

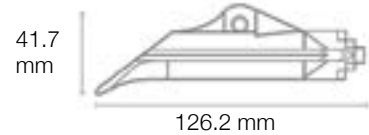
DUCKBILL® EARTH ANCHOR MODELS

LIGHT-MEDIUM CAPACITY (WLL)

(WORKING LOAD LIMIT)

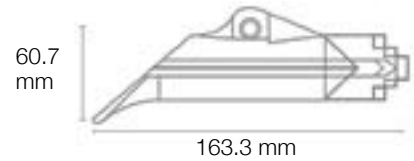
MODEL 68 495 KG CAPACITY IN NORMAL SOIL

Used for medium holding capacities is cabled with a 3.2mm cable. For more aggressive soil, it can be cabled with a 6mm galvanised or stainless steel cable.



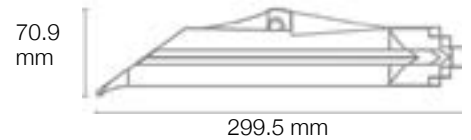
MODEL 88 1350 KG CAPACITY IN NORMAL SOILS

The most common of the DUCKBILL® Anchors, the anchor is cabled with a 6mm cable. For more aggressive soil, it can be cabled with a 8mm galvanised or stainless steel cable.



MODEL 138 2250 KG CAPACITY IN NORMAL SOILS

The largest of the DUCKBILL® Anchors, the anchor is cabled with a 8mm galvanised or stainless steel cable. This anchor is installed with a small jackhammer.



DUCKBILL EARTH ANCHOR MODELS

LIGHT-MEDIUM CAPACITY (WORKING LOAD LIMIT kN)

COMMON SOIL; TYPE DESCRIPTION	GEOLOGICAL SOIL CLASSIFICATION	TYPICAL BLOW COUNT "N" per ASTM-D 1586	40-DB 0.5m DEPTH	68-DB 0.8m DEPTH	88-DB 1.1m DEPTH	138-DB 1.5m DEPTH
Sound hard rock; unweathered	Granite, Basalt, Massive, Limestone	N.A ROD = 50 1/2	1.37 (1,3)	4.9 (1,3)	13.4 (1, 3)	1,3
Very dense and/or cemented sands; coarse gravel and cobbles	Caliche, nitrate -bearing gravel/rock	60 – 100+	1.37 (2,3)	4.9 (2,3)	13.4 (2,3)	2,3
Dense fine sand; very hard silts and clays (may be preloaded)	Basal till; boulder clay; caliche; weathered laminated rock	45 – 60	1.37 (2,3)	4.9 (2,3)	13.4 (2,3)	2,3
Dense clays, sands and gravel; hard silts and clays	Glacial till, weathered shales, schist, gneiss and siltstone	35 – 50	1.37 (3)	4.9 (3)	13.4 (3)	22.3 (3)
Medium dense sandy gravel; very stiff to hard silts and clays	Glacial till, hardpan marls	24 – 40	1.37 (3)	4.9 (3)	13.4 (3)	22.3 (3)
Medium dense coarse sand and sandy gravel; stiff to very stiff silts and clays	Saproutes, residual soils	14 – 25	0.98 – 1.37 (4)	3.58 – 4.9 (4)	8.8 – 13.4 (4)	17.8 – 22.3 (4)
Loose to medium dense fine to coarse sand; firm to stiff clays and silts	Dense hydraulic fill; compacted fill, residual soils	7 – *14	0.49 – 0.98 (4)	1.77 – 3.58 (4)	4.4 – 8.8 (4)	7.6 – 17.8 (4)
Loose fine sand; alluvium loess; soft - firm clays; varied clays; fill	Flood plain soils; lake clays; adobe; gumbo fill	4 – *8	0.24 – 0.49 (4)	0.98 – 1.77 (4)	2.2 – 4.4 (4)	4.4 – 7.6 (4)
Peat, organic silts, inundated silts, fly ash	Miscellaneous fill, swamp marsh	0 – 5	0.12 – 0.34 (4)	0.49 – 1.23 (4)	0.49 – 0.12 (4)	2.2 – 5.4 (4)

1 Drilled hole required to install, full depth typically not required to exceed rated capacity

2 Installation may be difficult, Pilot hole may be required

3 Holding capacity limited by rated structural rating of Anchor

4 Holding capacity limited by soil failure

INSTALLATION EQUIPMENT AND METHODS



Hammer
hand drive steel



Hand held
breaker hammer

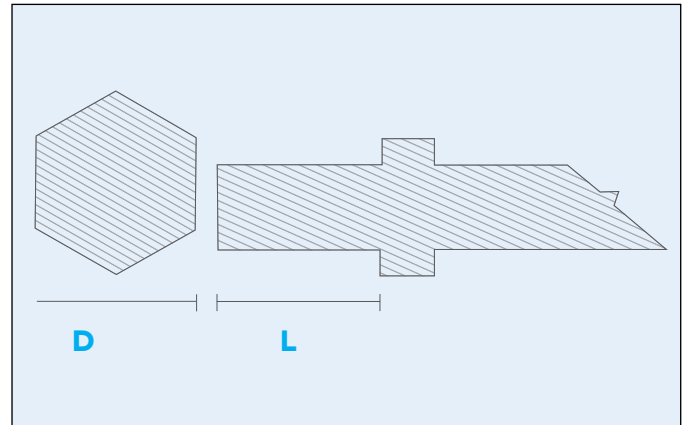


Mounted breaker

POWER DRIVE STEEL

Each DUCKBILL® anchor has a unique drive steel that is determined by the jack hammer and the anchor model. To select the drive steel that is right for your particular anchor:

- 1. Determine the anchor**
that you are going to install.
- 2. Measure the hex size [d]**
across the flats of a shank that fits
the hammer (see right).
- 3. Measure the shank length [L]**
from the top of the hex to the collar
(see right).



TRAINING & TECHNICAL MANUAL

Ancor Loc can hire installation equipment on request and can also provide on-site training for your staff to help you meet the requirements of the Work Health and Safety Regulations 2012 Division 1 - Information, training and instruction section 39 - Provision of information, training and instruction.

TECHNICAL MANUAL INCLUDES

- Anchoring recommendation for transportable buildings
- Anchor & straining kit test results
- Designer Checklist
- Copy of load record sheet

CONTACT US

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ALSO AVAILABLE FROM

