

Anchorbloc™ FAQs

What is the install cost of Anchorbloc™?

Typically the Anchorbloc™ costs approximately \$375 per m² – installed. This doesn't take into account any costs associated with soil preparation, traffic management etc. This is highly cost competitive. Often other retaining systems such as Gabions with lower material costs are selected due to the perceived lower upfront cost. When installing using recommended practices, lengthy install times and labour intensive construction can increase installed costs of these other retaining systems to above \$400 per m². This does not take into account additional costs associated with increased traffic management/equipment hire and penalty clauses in the contract.

What is the speed of install of Anchorbloc™?

Anchorbloc™s are extremely quick and easy to install and an unspecialised 2 man team can easily construct 73m³ /day (70 blocks of wall per day). In comparison the construction of a Gabion wall is 2 – 6m³ / day based on the same size team. Please note these figures are conservative estimates based on construction using recommended practices (Figures taken from websites of Gabion suppliers).

What type of labour is needed to construct an Anchorbloc™ wall?

The 1.5 tonne blocks can be safely and efficiently installed by an unspecialised 2 man team using small to medium sized earth moving equipment with Swiftlift Anchors. The 2 x certified lifting points on the Anchorbloc™ are 2.5 tonne rated and ensure safety especially in hard to access areas. The simple and regular geometry of the block facilitates consistent install quality.

What is durability of the Anchorbloc™?

The Anchorbloc™ has a guaranteed 100 design year life. The blocks are scour resistant.

Can the Anchorbloc™ tolerate differential settlement?

Yes. The levelling pads, consisting of compacted hard fill and sand, provide a stiff yet somewhat flexible base to distribute the weight of the wall. Because the Anchorbloc™ are installed without mortar, they are free to move slightly in relation to each other and can conform to ground movement. Flexibility of the levelling pads and Anchorbloc™ wall accommodates movement such as temperature induced movement, freeze/thaw actions, and moderate differential settlement such as that on RipRap without damaging the structure.

Where can Geotextile be positioned on Anchorbloc™?

Anchorbloc™s have engineered attachment locations for Geotextile. Layers can be directly attached to the Anchorbloc™ at 500mm intervals up the height of the wall allowing for extremely flexible placement options. Locking bars can be located at the top and in the middle of the back of an Anchorbloc.

What is the Geotextile connection capacity?

Anchorbloc™s has one of the highest geo-textile connection capacities of any retaining wall on the market. Tested and certified geogrid attachment points on the top surface and at mid height on the back of the block, provide obvious attachment points and when used with the specially designed locking bar, can generate up to 100% breaking load of most commonly used Geotextile.

Do you need onsite concrete?

No. Anchorbloc™ walls are installed on levelling pads consisting of compacted hard fill and sand. Expensive rigid concrete footings are not required or recommended. To provide additional strength and resistance to sliding and overturning actions, Anchorbloc™ retaining walls can be installed with the lower segment of the wall embedded below grade. A typical embedment design would allow one-tenth (1/10) of the wall height below grade. Embedment should increase for special conditions such as slopes at the top of the wall, soft foundation soils, or shoreline applications. Embedment provides enhanced wall stability and long term protection of the foundations and levelling pad.

How high can wall be before you need an Engineer?

Any retaining wall, no matter which type, exceeding 1.5m tall will require an independent design completed by a Chartered Professional Engineer and will require a building consent from the Local Council. Standard drawings are available through Humes for most common applications.

Can roadside hardware be installed in top of Anchorbloc™?

Yes, Anchorbloc™ units have an internal void that passes through the height of the blocks. This void can be utilised in the top of blocks for installation of roadside hardware (guardrail, light columns, sign posts etc), especially in narrow roading corridors. Using the void to support the foundation elements of roadside hardware can increase the stability of foundation and allow for more usable space behind the wall.

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Can you dismantle an Anchorbloc™ wall?

Yes. There is the ability to dismantle and re-erect an Anchorbloc™ structure in temporary situations or where the project may need to be reconfigured. For example in flood conditions.

Can you have curved layout?

Yes. With their trapezoidal shape and modularity, Anchorbloc™s can be stacked in various shapes including the extremely flexible construction of concave, convex and serpentine curves.

Can an Anchorbloc™ wall dissipate hydrostatic pressure?

Yes. An Anchorbloc™ wall has sufficient voids in and around the blocks to allow pore water to seep through the wall. As a result it is often not necessary to use additional drainage materials or filter fabrics behind the wall. However, drainage requirements for individual walls should follow the instructions of a registered Engineer. Anchorbloc™ walls are designed assuming no hydrostatic pressure behind the walls. Drainage aggregate (angular gravel, clear of fines) placed behind the wall helps to eliminate water accumulation. As all Anchorbloc™ walls are manufactured by dry stacking the blocks, no mortar is used between the blocks, water is free to weep through the joints and the voids of the blocks.

What type of geogrid is most suitable for Anchorbloc™?

Typically recommend are the Cirtex products (ACEGrid). The Anchorbloc™ locking bar system has been engineered to work with a flexible geogrid system. This encompasses most of the geogrid materials on the market, however some of the more rigid uniaxial geogrid (such as some of the Tensar products) may be too stiff to roll around the locking bar detail. Most suppliers of geogrid product do not provide any limitations on to the minimum bend radius and as such it is difficult to say which products will not be suitable. However, as a rule of thumb, any geogrid products that are uniaxial systems (one directional) and join using a Bodkin section (typically only the Tensar products) may be too stiff to bend.

How versatile is Anchorbloc™?

A single block and robust design means that Anchorbloc™ is extremely versatile and can be used for a wide range of retaining wall applications. Typical applications include:

- Cut and fill projects on highways
- Slope stabilisation
- Road widening
- Erosion protection for coast & stream applications
- Roadside embankments
- Construction of batter slopes
- River bank stabilisation
- Bridge abutment etc.

Question	Anchorbloc™
What is the install cost?	\$375 / m ² installed
What is the speed of install?	73m ³ / day (2 man team)
What type of labour required to install?	Unspecialised labour
What are the health and safety aspects?	Certified lifting points, certified concrete
What is the durability?	Guaranteed 100% Design Life
Can Anchorbloc™ tolerate differential settlement?	Yes
What is the Geotextile connection capacity?	Tested and certified to 100% breaking load
Where can Geotextile be positioned?	Engineered locking bar, placed at 500 mm intervals
Can roadside hardware be installed?	Yes, internal void provides consistent foundation
How versatile is Anchorbloc™?	Can be dismantled and reconfigured

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