

# ROCLA

OUR DIFFERENCE IS CONCRETE

## Alfabloc walling system

alfabloc™



**POUNDFIELD  
PRODUCTS**

Manufacturers of pre-cast concrete products





OUR DIFFERENCE IS CONCRETE

With over 98 years of experience and engineering 'know how', Rocla is the clear leader in Precast Concrete Products in South Africa.

From custom made concrete products and accessories through to our full product range, we pride ourselves in absolute quality and above average service. Our technical team is always on the look-out for the latest technologies and innovations from all over the world.

Making us your preferred partner for all things precast, ensures that you always benefit from the Rocla difference, which is indeed, concrete.

With the local requirements for industrial and commercial security solutions as well as grain storage, both on farms and in warehouse environments, we decided to investigate how and where we could add value to these industries.

After exhaustive research into the precast concrete walling industry, we recognized the ingenuity and efficiency of the products designed, tested and patented by Poundfield Products in the UK. As these products currently have a very successful track record going back up to 12 years, we therefore decided that the best option would be to partner with them and there-by benefit from their expertise.

We are excited to announce our new partnership with Poundfield Product and have been appointed the exclusive license holders for their Alfabloc™, Lbloc™ and Shuttabloc™ systems to Southern Africa.

# alfabloc™

Poundfield Products Ltd was founded by Mark Jardine, whose experience of the on-site problems of many existing retaining wall systems led to the design of the Alfabloc™ which he began manufacturing in 1999. It is a precast concrete retaining walling system that was – quite simply – quicker and easier to install than any competing product. It has no protruding toe and in most cases can be used freestanding. The Alfabloc™ was immediately successful and spurred the creation of many other new products which have been introduced since.

Established in 1999 and based near Ipswich, Suffolk (England), the company specialises in the development and manufacture of innovative new products for the building and construction industry with a constant focus on quality, safety and ingenuity.

The company's success has been based upon an ability to focus on a problem and develop a solution which is practical in terms of both technology and cost. Poundfield products are represented, under license, in England, Ireland, Mainland Europe, USA and now SA.

The unique **Alfabloc™** walling system has seven important advantages over any other traditional walling on the market today.

1



**Freestanding**

No Ground fixing required in most cases.

Load one side only or both sides.

2

**Threaded Inserts**

16mm or 20mm threaded inserts cast into block, for connecting or lifting.

3



**Easy Installation**

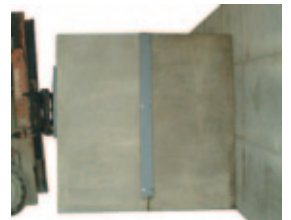
No other walling system can be installed as quickly.

4

**Delivered Upright**



6



**Interlocking**

Blocks interlock with a 'cast-in' concrete tongue-and-groove joint to form a solid wall.

5

**Bay Configuration**



Bay configuration can be changed in minutes

7



**No Protruding Toe**

Allows easy cleaning and unloading.

No protruding toe to get caught on.

# Accessories

A unique and extensive range of accessories can complement the **Alfabloc™** range.

## Roof Kits

Roof kits offer a covered storage option with the **Alfabloc™** walling system.



## Steel Extensions

Increase 3m unit to 3.6m concrete extensions also available.



## Corner Sections

Corner sections allow **Alfabloc™** walls to be continuous and 'gap' free. Concrete corners also available.

## End Covers

End covers seal the wall units and are available in a variety of designs. Blocks can also be ordered with a 'cast-in' concrete wall covering the end.

## Lifting Attachment

The unique lifting attachment ensures ease of construction, making an **Alfabloc™** wall a 'one man' operation.

## Indestructible Push Wall

Pump hollow section with concrete to form a virtually indestructible wall.

## Recessed Connecting Straps

Recessed connecting straps attach wall units together along their vertical length. These are optional and available in steel and rigid PVC.



## Optional Ground Fixing

Ground fixing are available for an even more secure surface attachment.



## Top Channel

Standard cast in threaded inserts allow fixing of top channel.





# Applications

The Alfabloc™ is a very structurally efficient and versatile concept in design. In the majority of working conditions the Alfabloc™ units are lowly stressed and provide a robust retaining structure. With granular materials, which generally provide the most onerous loadings, the Alfabloc™ unit has additional stability generated by the frictional force down the face of the wall.

Experience has shown the units can withstand significant misuse by mechanical plant used to move retained material. However, as with all relatively thin walled concrete structure, they will suffer damage with persistent and negligent striking by mechanical plant.

The foundation for the Alfabloc system is usually the new or existing concrete surface bed onto which stored materials will be contained. The loads imposed by the Alfabloc™ units are usually no more than the wheel loads imposed by the mechanical plant utilised to move the stored material.

Depending on the nature of the stored material the units can either be placed onto the concrete surface bed or bolted into place. To assist in the spread of load horizontally the units are nominally fixed together with galvanised plate, which also provides a seal to the joints.

Alternatively if the straps are not required, the 'lip section' cast into the concrete profile will also assist with this load.

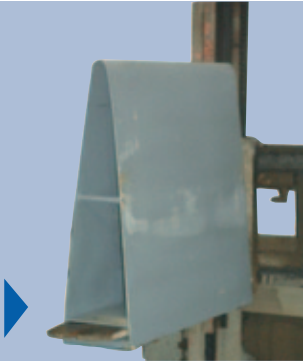
Fitting of a top channel assists to join the blocks but also provides a platform onto which any number of other security devices can be attached, such as steel arms for razor wire or CCTV installations. For security installations the cavity inside the Alfabloc offers a perfect secure location for the placement of cables.

All Rocla concrete used in Alfablocs has a guaranteed 28 day strength of 40MPa which, coupled with a steel mesh will provide a solid barrier against intrusion. The steep slope and smooth off-shutter finish provide protection against climbing.



## Instructions For Handling & Installation

- 1** 2.44m Alfablocs must only be lifted with an approved lifting attachment or with a suitable lifting attachment or with a suitable lifting chain if lifting loops are to be used in accordance with safety instructions.



- 2** Once secured to the forklift tines, the lifting attachment is inserted into the hollow of the A to lift the Alfabloc™.

**N.B.** 3.05m & 3.65m are designed to be lifted using the horizontal cross member 1.4m above the base of the block and therefore no attachment is required. 1.2m Alfabloc™ to be lifted with eyebolts in the top sockets.



- 3** Alfablocs are delivered upright on a flatbed vehicle.

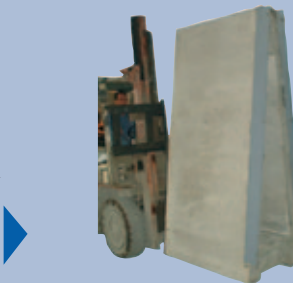
**N.B.** Most Alfablocs will be delivered without steel connecting straps.



- 4** Strapless units should always be used to begin installation of each new row of Alfablocs. This allows the first Alfabloc™ in a row to be placed flat against a retaining wall. Always ensure that female/male joints are correctly planned & aligned prior to starting with placement.



- 5** Always lift Alfablocs into position with the connecting straps or female part of tongue and groove joint facing away from the forklift i.e. towards the installed units, (except if corner blocks are being used, in which case the male joint faces away from forklift).



- 6** Align the Alfabloc™ with the previously installed unit.



- 7** Lift the Alfabloc™ approximately 450mm from ground level to enable you to lower it into place over installed unit, or place on floor in front of female joint & slide the block to secure the male joint.

- 8** Once in position lower the Alfabloc™ into place so that the connecting straps or concrete tongue and groove joint fit securely over the installed unit.

**N.B.** DO NOT attempt to install Alfablocs by inserting the unstrapped end of one unit into the strapped end of an installed unit.

- 9** To secure Alfablocs in place, first loosen the bolts in the 2 connecting straps of the freshly installed unit.

**(Steps 9 – 12 are only for installations where straps are being used)**

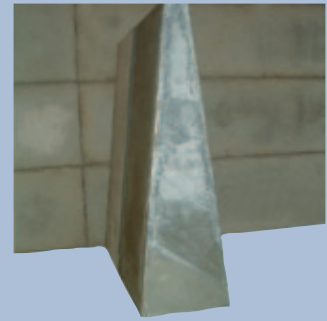
- 10** Align the holes in the front edge of the connecting straps with the holes in the previously installed unit. Insert bolts and tighten to secure the Alfabloc™ in place.

- 11** Re-tighten the previously loosened bolts in the newly installed unit.

- 12** Repeat the process (steps 5-11) until the desired number of units are installed in each row.



- 13** Attach steel end cover, if required, by bolting into the holes in the last unit installed in each row. Alternatively, the end block can be manufactured with a 'concrete closed' end.



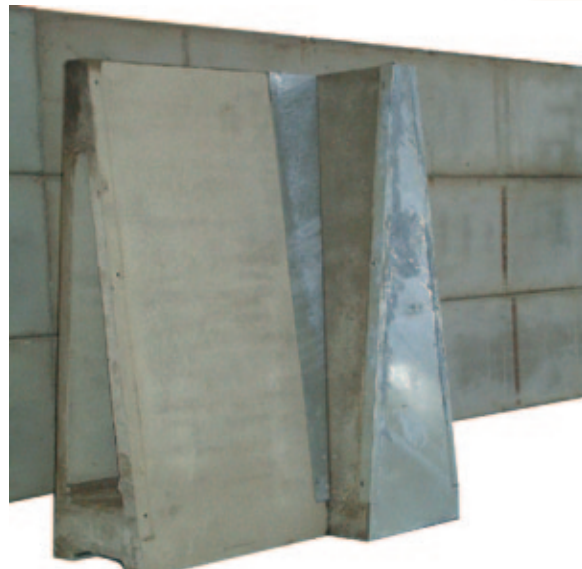
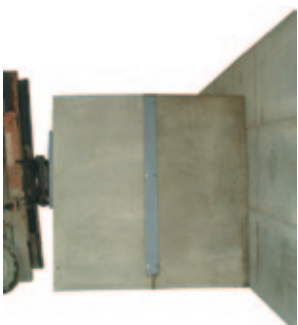
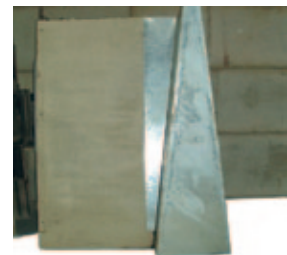
- 14** If required, a steel corner section can be attached to an Alfabloc™ in place of the connecting straps. This allows Alfablocs to be placed at right angles to one another forming a secure sealed corner, (see 16). Alternatively, concrete corner blocks are also available.



- 15** Alfablocs fitted with corner sections are moved into position the same way as normal blocks.



- 16** Position the corner unit against an existing Alfabloc™ wall and lower into position.



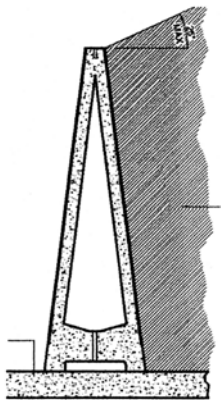


# 2.44m block

## Loading

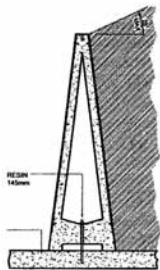
Refer to the adjoining table for anchoring requirements for various materials.

The maximum angle to 25° for suitable materials.



## Anchoring

2 No.32 Dia. Holes for M24 stud anchors 500mm long. 145mm embedment into slab & Kemfix R-CAS resin capsules.

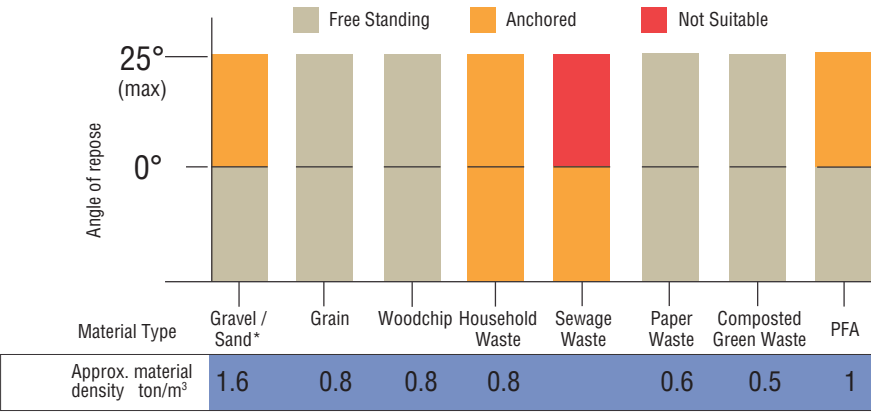


NB: all references to anchored blocks in the adjoining tables refer to this method of fixing.

Height	Length	Thickness at base	Weight
2 440mm	1 220mm**	762mm	1.7Tons*

\*\*Effective length 1 200mm

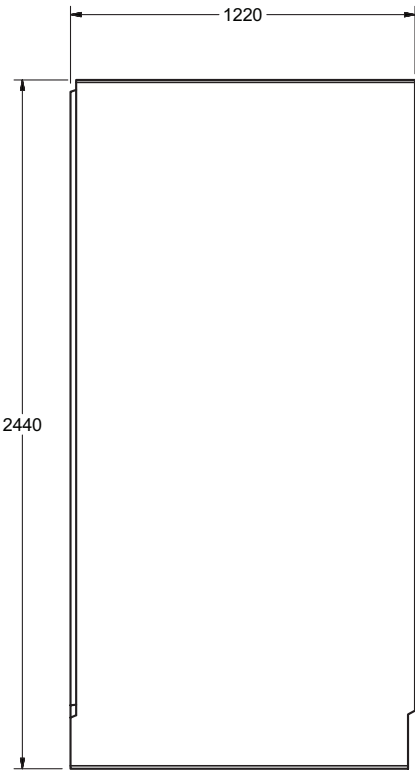
## 2.44 metre wall height



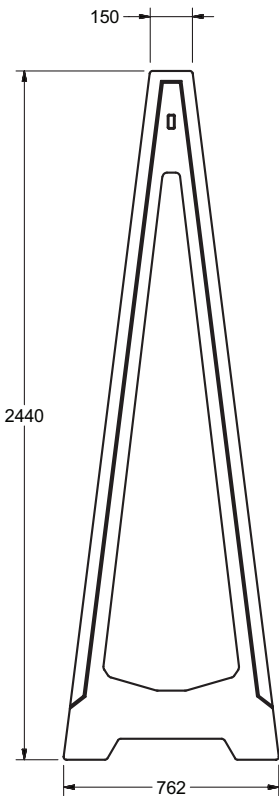
NB: Alternative uses should be referred to ROCLA for technical advice (011) 670 7600

\* Please note that block mass will fluctuate between factories due to different concrete densities.

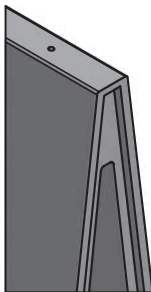
## Section & Dimensions



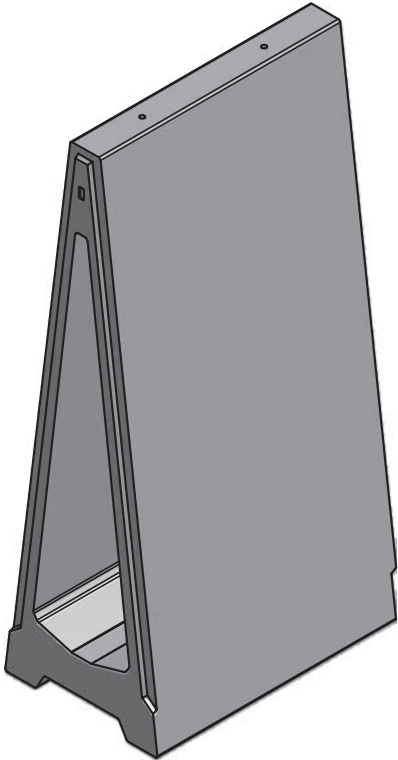
SIDE VIEW



FRONT VIEW



VIEW ON FEMALE JOINT



VIEW ON MALE JOINT

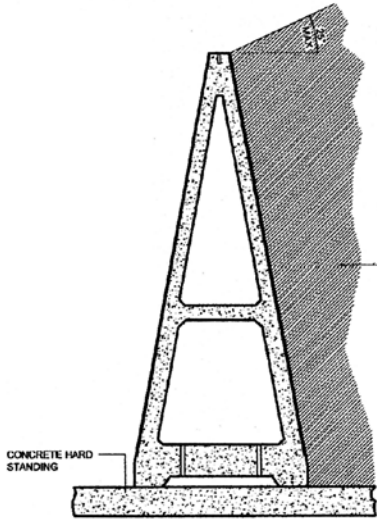


# 3.05m block

## Loading

Refer to the adjoining table for anchoring requirements for various materials.

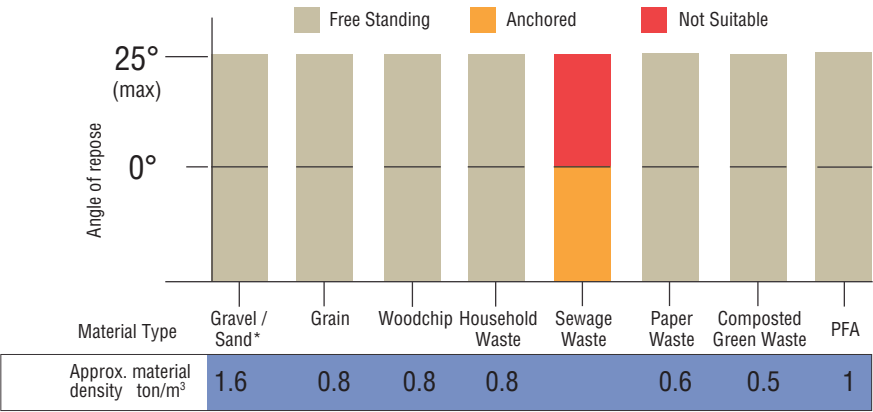
The maximum angle to 25° for suitable materials.



Height	Length	Thickness at base	Weight
3 050mm	1 220mm**	1 220mm	2.7Tons*

\*\*Effective length 1 200mm

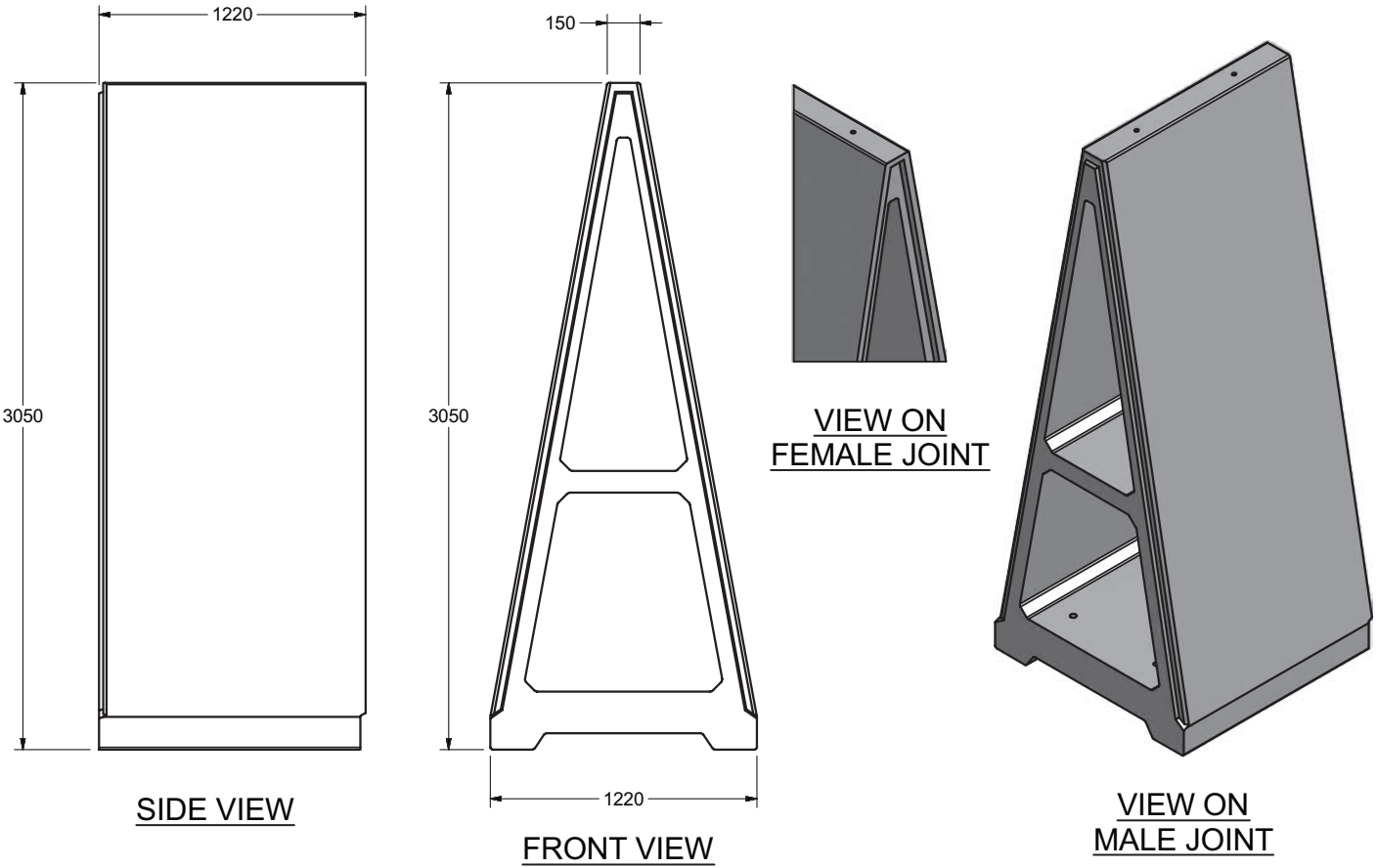
## 3.05 metre wall height



NB: Alternative uses should be referred to ROCLA for technical advice (011) 670 7600

\* Please note that block mass will fluctuate between factories due to different concrete densities.

## Section & Dimensions



# alfabloc mini



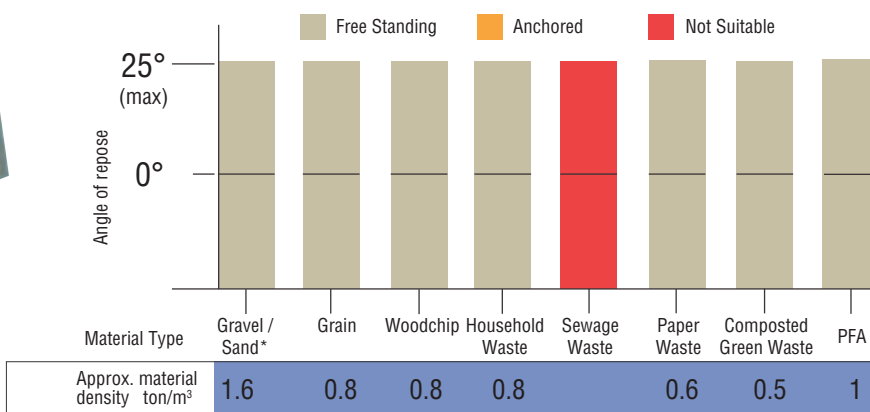
The Mini Alfa is shorter and wider than the conventional Alfa, but still retains all the features that make the Alfabloc™ range a unique walling system capable of fulfilling a large variety of storage applications.

It can also retain soil to its full height without being ground fixed.  
The new MiniAlfabloc™ is even more flexible and allows storage of smaller quantities of material without the expense of the larger Alfabloc™.

Height	Length	Thickness at base	Weight
1 220mm	2 000mm**	610mm	1.5 Tons*

\*\*Effective length 1 980mm

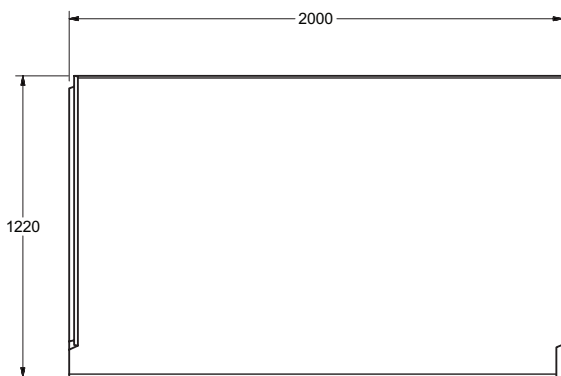
## 1.22 metre wall height



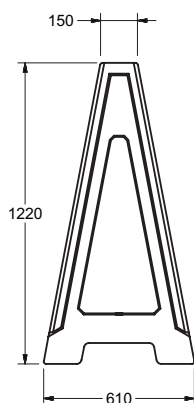
NB: Alternative uses should be referred to ROCLA for technical advice (011) 670 7600

\* Please note that block mass will fluctuate between factories due to different concrete densities.

Note: Units will be vulnerable to sliding if struck by mechanical plant i.e., loading shovels pushing against unit as it is not possible to bolt down.



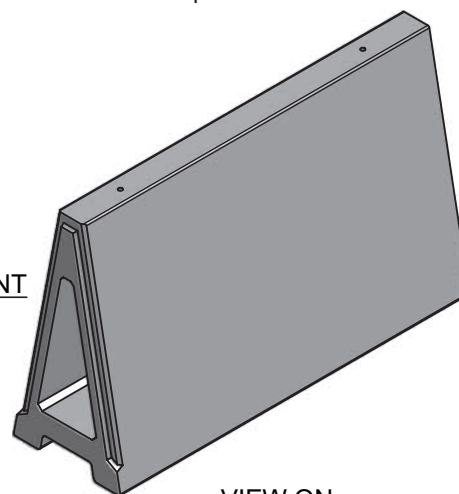
SIDE VIEW



FRONT VIEW



VIEW ON FEMALE JOINT



VIEW ON MALE JOINT









## ROCLA NATIONWIDE

Positioned to serve your needs, Rocla's 11 factories are strategically located throughout South Africa's nine provinces and in Namibia and Botswana.

South Africa and offshore markets are cost effectively supplied by road, rail and sea.

Made by modern processes, supervised in accordance with SABS Quality Management System, Rocla's factories make products that proudly carry the SABS Mark of Approval.

**HEAD OFFICE, PO Box 92, Roodepoort 1725, Tel: (011) 670 7600, Fax: (011) 472 5754**

- **Blackheath:** Tel: (021) 905 1270, Fax: (021) 905 2913
- **De Aar:** Tel (053) 631 3601/2, Fax: (053) 631 3351
- **Gaborone, Kwena Rocla:** Tel: (09267) 390 4032, Fax: (09267) 390 7160
- **Nelspruit:** Tel: (087) 354 9202, Fax: (086) 675 9524
- **Newcastle:** Tel: (034) 375 7848/9, Fax: (034) 375 6941
- **New Germany:** Tel: (031) 705 1525, Fax: (031) 705 1773
- **Polokwane:** Tel: (015) 293 1857/8, Fax: (015) 293 2821
- **Port Elizabeth:** Tel: (041) 486 1462, Fax: (041) 486 2835
- **Roodepoort:** Tel: (011) 670 7669, Fax: (011) 672 2464
- **Stilfontein Depot:** Tel: (018) 484 6234, Fax: (018) 484 2983
- **Virginia:** Tel: (087) 354 8693, Fax: (086) 646 6291
- **Windhoek, Rocla Pipes:** Tel: (0926461) 26 3128, Fax: (0926461) 21 5149

Email: [info@rocla.co.za](mailto:info@rocla.co.za)

Web: [www.rocla.co.za](http://www.rocla.co.za)

alfabloc™



**ROCLA**  
OUR DIFFERENCE IS CONCRETE

**iSG**  
Infrastructure Specialist Group