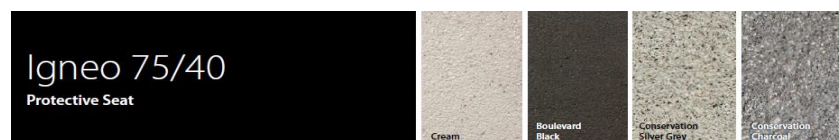
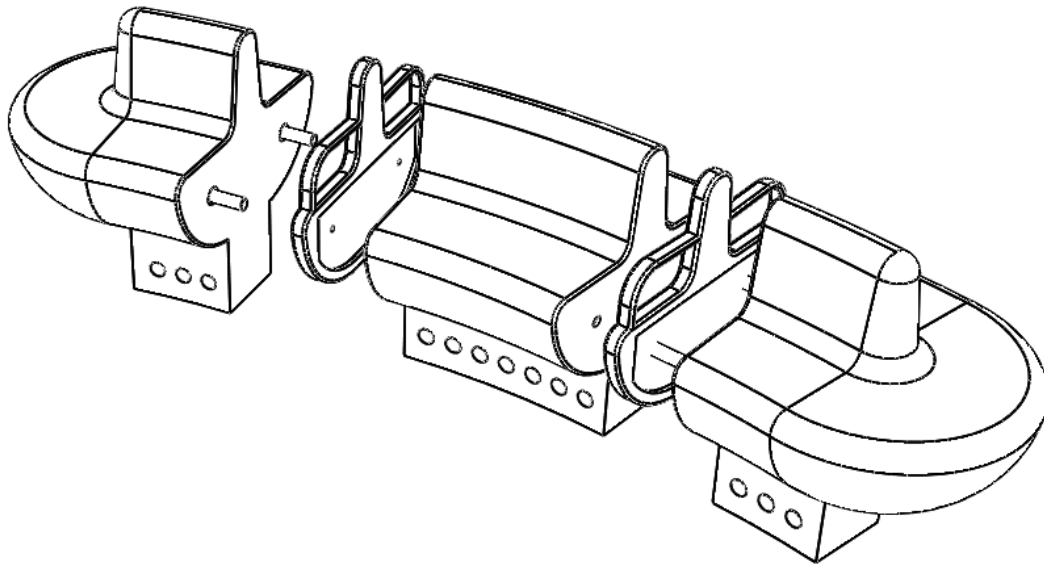


Rhino Guard 75/40 Igneo Seat

Operation & Maintenance



Introduction

Engineering Design

Engineering design, shop drawings and development by Marshalls Street Furniture

Manufacture

Marshalls Street Furniture manufacture components for products which are assembled in the Marshalls Street Furniture factory, checked and dispatched ready for installation. Replacement products or components should be ordered direct from Marshalls Street Furniture

Copyright

The design copyright for the product and drawing copyright remains the sole property of Marshalls Street Furniture

75/40 Igneo Seat

General Specifications

Description

Igneo is a modular seating system that offers unique styling, combined with functionality and exceptional impact performance.

The Igneo seat has been successfully crash tested in accordance with PAS 68 using a 7.5 tonne vehicle travelling at 40mph. It can be specified in any length, using any number of modules. It is manufactured from Marshalls' fibre reinforced precast concrete and further strengthened by RhinoGuard technology, which is cast into the individual modules.

Armrests can be installed between sections if required, these are manufactured in Ferrocast polyurethane.

Ferrocast Arm Section Weight 21.5 Kg
Cast End Section Weight 1000 Kg
Cast Int. Section Weight 1200 Kg

Weights are approx.

Design use is for the protection of infrastructure. The system has been designed and tested showing it meets the requirements of PAS 68:2010 and achieved a rating of V-Fixed Seat V/7500(N2)/64/90:3.5/0.0 as contained in MIRA report 1026250-079 Rev.1

General Maintenance

Recommended Schedule & Guidelines

Monthly

Visually check all items for superficial or physical damage.

Three Monthly

Fully clean all items as detailed later in this section.
Check all fixings are seated correctly

Six Monthly

Secure all fixings.
General Cleaning, Inspection & Repairs as above.

All Finishes

It is recommended that a trial repair be carried out on an unimportant surface first. ***No corrosive cleaners or other cleaners with added abrasives should be used.*** Any contamination, particularly carbon steel scuffs from vehicles, should be quickly removed to avoid corrosion.

In the event of serious damage to a seat, replacements can be ordered from Marshalls Street Furniture.

In the event of serious surface contamination or staining, please contact Marshalls Street Furniture directly for detailed technical advice.

Cleaning and General Maintenance

For specific guidelines seek advice from Marshalls:

Contacts

Marshalls Street Furniture

Premier Way

Lowfields Business Park

Elland

Halifax

West Yorks

HX5 9HT

Tel: 0870 600 2425

Fax: 0870 600 2426

e-mail: msf.sales@marshalls.co.uk

Web: [www.marshalls.co.uk/street furniture](http://www.marshalls.co.uk/street_furniture)

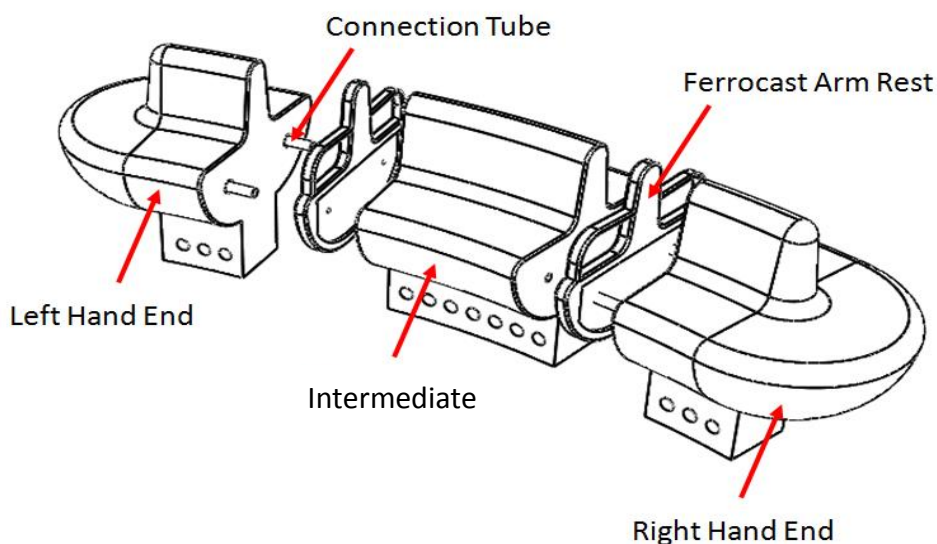
Important Notes

1. Do not scale drawing. Use figured dimensions and levels only. All sizes are in millimetres.
2. The contractor is to verify dimensions and levels on site prior to starting work.
Any discrepancies to be reported to the engineer for clarification before proceeding with the construction.
3. All specified materials shall be used in accordance with the manufacturer's recommendations.
4. Nomination of proprietary items does not indicate exclusive preference but the required properties and performance of the item. Similar alternatives having the equivalent properties may be used.
5. After 1st concrete pour allow min 48 hours before attempting to locate and position precast seats.
6. Seat connection pegs must be installed prior to final positioning of seats.
7. After final positioning and levelling of seat, bar mk.10 to be installed through anchor holes in seat and anchor loop mk.06 of foundation.



75/40 Seat

Seat Assembly



Installation Instructions

1. Do not scale from this drawing.

(All dimensions must be checked and verified on site.)

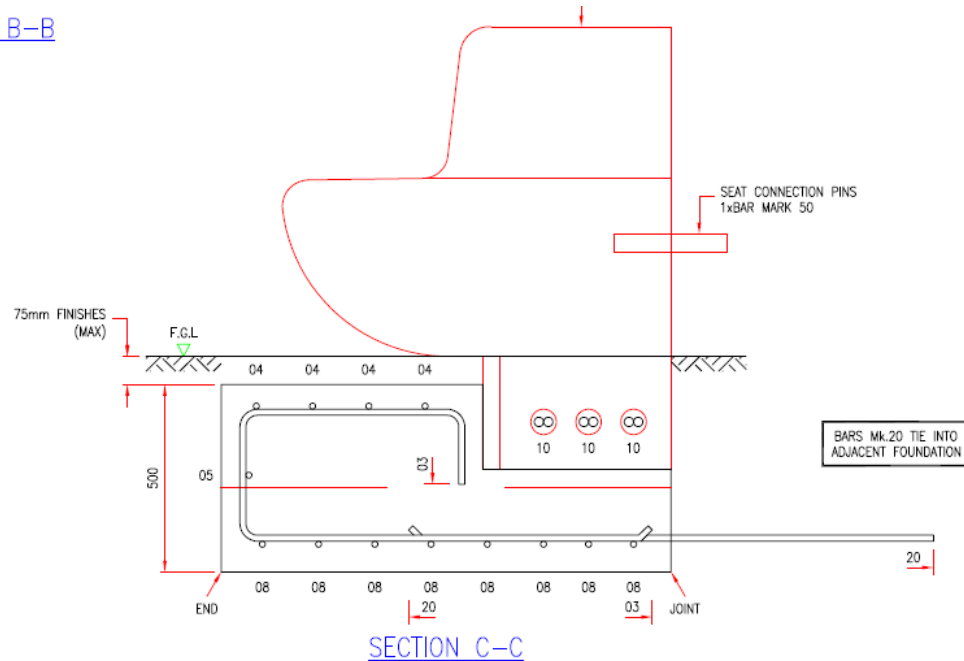
Ensure the product is installed in accordance with PAS Foundation:

Important Note: All Lifting & Lifting Aids are capable to lift product Mass and done so by a trained and competent person or persons.

2. Expected construction sequence

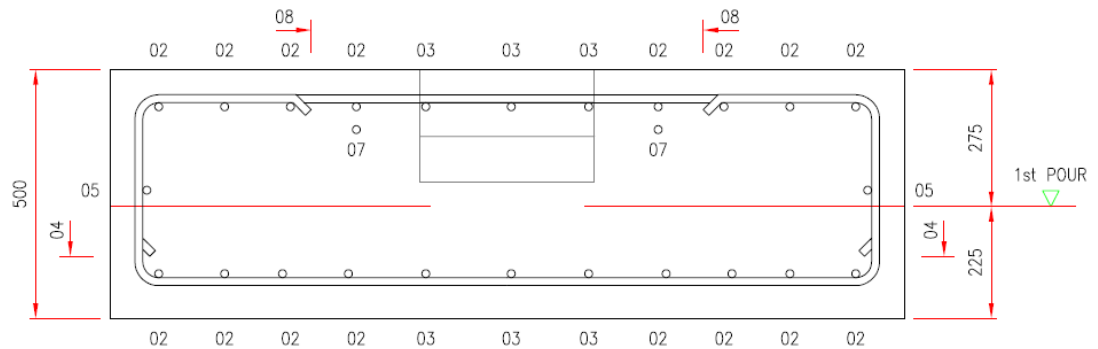
1. Select area as per project site layout drawing.
2. Excavate correct area as per configuration required.
3. Modular foundation rebar cages fabricated, bar marked 20 ties modular cages together and provides continuity between foundations.

SECTION B-B



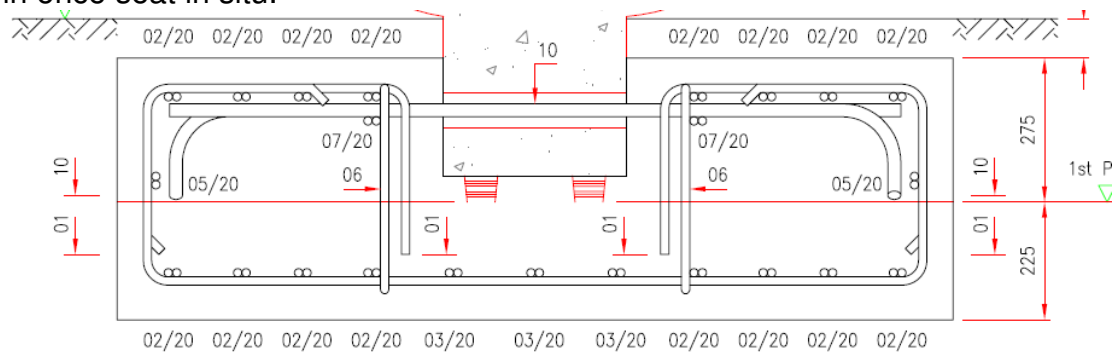
4. Fabricate Full cage work for seat configuration as per Foundation Drawing.
5. Pour concrete First Pour to 225mm (Section B-B) Finish to first pour to be wood float.

Rhino Guard 75/40 Seat



SECTION B-B

6. See CAD drawing Bar marked 6 will sit above 1st pour concrete ready to tie in once seat in situ.



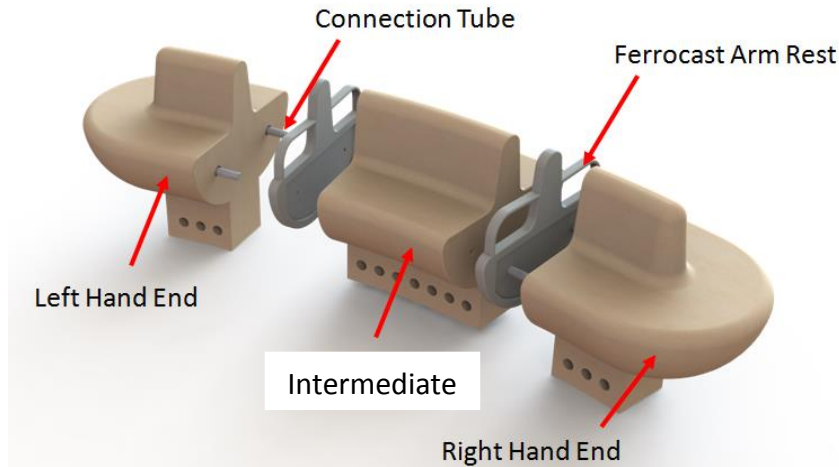
7. After 1st concrete pour allow min 48 hours before attempting to locate and position precast seats.
8. Lower Left Hand End Seat section into position and level (Using lifting straps through holes in base of seat to manoeuvre seats into place)

Important Note:

All Seat connection pegs must be installed prior to final positioning of seats
(Weights as above)

Seat Section **Must** be packed up to allow concrete to flow underneath once 2nd pour to be done

9. Bond Connection Tube in Place



10. Fit Ferrocast Arm rest (if required).
11. Lower Intermediate Seat section into position and level.
12. Bond Connection Tube in Place.
13. Fit Ferrocast Arm rest (if required).
14. Lower Right Hand End Seat section into position and level.
15. Check all seats are level and that all faces are closed in between seats.
16. After final positioning and levelling of seat, bar mark 10 to be installed through anchor holes in seats and anchor loop (06) of foundation.

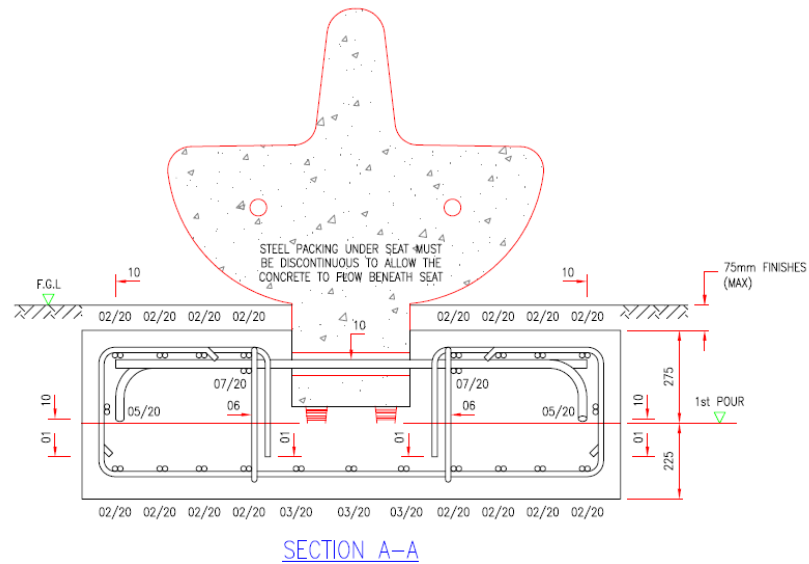
Important Note:

Ensure all Rebar are tied into current foundation to tie in product & Foundation.

All Seat connection pegs must be installed prior to final positioning of seats.

17. Final Top surface to be steel float finished.

Rhino Guard 75/40 Seat



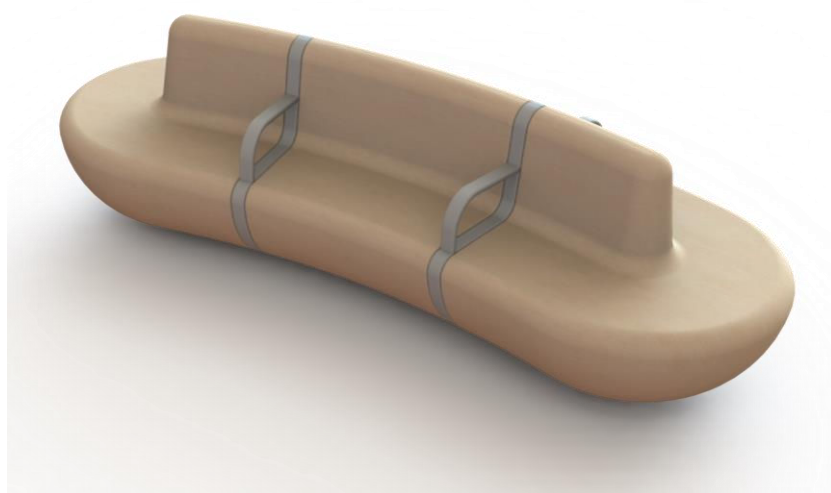
18. Remove any protective wrapping from the Seat and clean off any dirt.
19. Clean (if required) in accordance with attached documents.
20. Note that paving materials will have to be cut around the Seat.

IMPORTANT NOTICE:

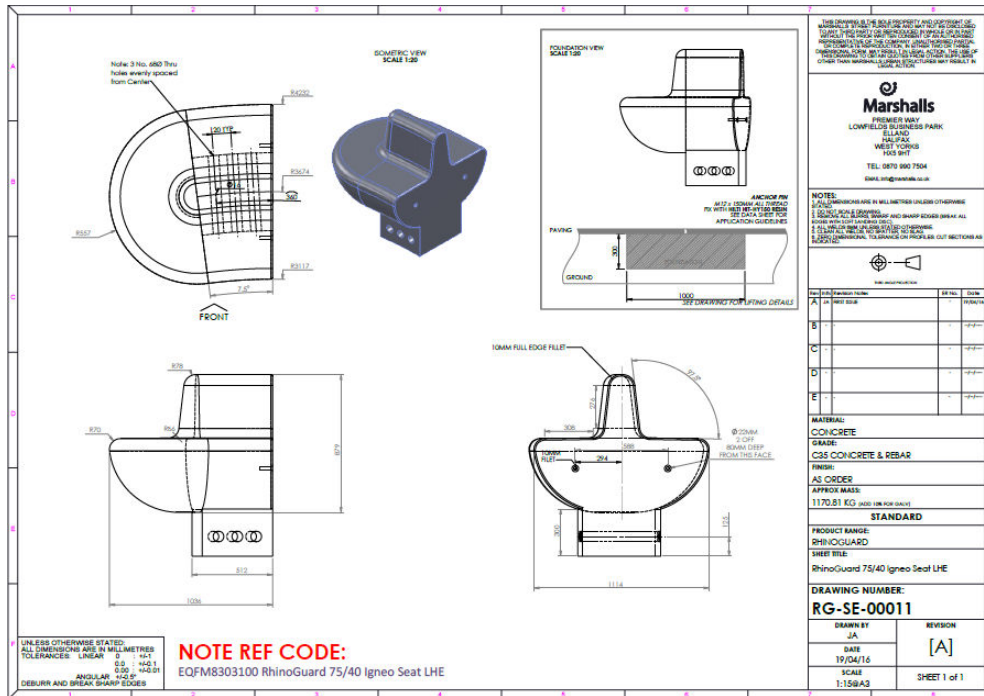
Ensure that concrete Seat is protected during site cutting of stone – contamination from disc cutters will produce corrosion of its components.

Refer to Marshalls foundation drawing PAS 68. 4540/MLA/220 for full details of foundation installation

Finished Product



Drawings



Rhino Guard 75/40 Seat

