



**Avon Barrier Company Ltd**

## **AVON GC1100CR HIGH IMPACT HINGED GATE**



Example Picture Only.



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## INTRODUCTION

This manual provides information on the Avon GC1100CR High Impact Hinged Gate. It is designed to assist the Specifiers, Installers, Operators and Procurement Staff.

Should you require any further information or specific assistance please contact our security specialists at our UK Head Office.

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## SCOPE OF DOCUMENT

The Avon GC1100CR High Impact Hinged Gate shall hereafter be referred to as the 'Gate'.

This document is intended for those who will:

Specify the site / system.

Operate the High Impact Hinged Gate.

Maintain the Fast gate.

### IMPORTANT: Note for system/site designers

The safe operation of the Avon GC1100CR High Impact Hinged Gate depends on a careful balancing of the various risk factors which are inevitably associated with operating a large piece of moving equipment in a public area.

Site specific risk assessments should be carried out and the mode of operation decided upon *before* the system specifications are made final. Avon Barrier Company will be happy to provide advice and consultation services are available upon request.

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## HEALTH AND SAFETY.



**This symbol indicates a potentially hazardous situation that might result in injury or machine damage. It also indicates strict attention must be given to the instructions following this symbol.**

**Where associated equipment is supplied or fitted by others, the seller and purchaser of the equipment are responsible for ensuring that:**

**The equipment complies with all Safety Requirements,**

**The associated equipment does not adversely affect the operation or safety of equipment supplied by Avon Barrier Company Limited.**

**It is the sole responsibility of the owner / user of the equipment to establish which legislation is applicable to the country in which the equipment is installed, and to ensure subsequent compliance with all national and local regulations.**

**It is recommended that this assessment be reviewed before the equipment is set to work.**

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## **PRODUCT DESCRIPTION.**

**The Avon GC1100CR High Impact Hinged Gate provides a high level of security against unauthorised vehicle access.**

Designed to withstand substantial direct impact forces the gate is used to protect sites from extreme aggressive attacks.



*Fig 1.0*

Manufactured by engineers with a wealth of experience in the fields of High Security and Access Control, the GC1100CR is a highly dependable security product.

Each gate incorporates the crash tested vehicle restraint system (1852KJ resistance).

Shallow foundation depths are from under 470mm subject to gate design.

Units are assembled in our UK fabrication facility using heavy gauge materials to give maximum strength and durability; this makes the Avon GC1100CR High Impact Hinged Gate the ideal product for your establishments.

## **General Specification.**

The Gate is constructed with up to a 6m Clear width Opening using a heavy steel cross beam. The foundations comprise of a rebar cage set in concrete to a depth of 470mm. Side Catcher assemblies are set within the rebar reinforcements with the hinged post is fixed to studs grouted into the concrete foundation.

The gate is manually operated as standard, however it can be customised to be automated and to interface with a wide range of access control equipment to suit specific customer requirements (available as options) and any configuration including (but not limited to) inductive loop systems, card readers, communication equipment and manned guard panic systems can be accommodated.

Where the Gate is automatic and the control point is remote from the installation, we strongly recommend the fitting of a recordable CCTV system, traffic lights and safety inductive loop systems

The gate is not designed for use by pedestrians and a full operating risk assessment should be carried out by the operator.

## TECHNICAL DETAILS

**Construction:** The framework is constructed from fully welded, heavy gauge, steel angle and box section and hi-tensile structural steel

**Painting:** Short Blasting to SA2.5, Zinc Coating PZ 770 AKZO Nobel Powder to 80 microns, Finished with Polyester Texture RAL 1007 Yellow RSP 1054

**Weight:**

- The Avon GC1100CR Manual swing gate Hinge post with foundation table weighs approximately 369KG
- The Avon GC1100CR Manual Swing gate boom for a 6M CWO weighs approximately 530KG
- The Avon GC1100CR Manual Swing gate 2 x Catcher A frames weigh approximately 980KG

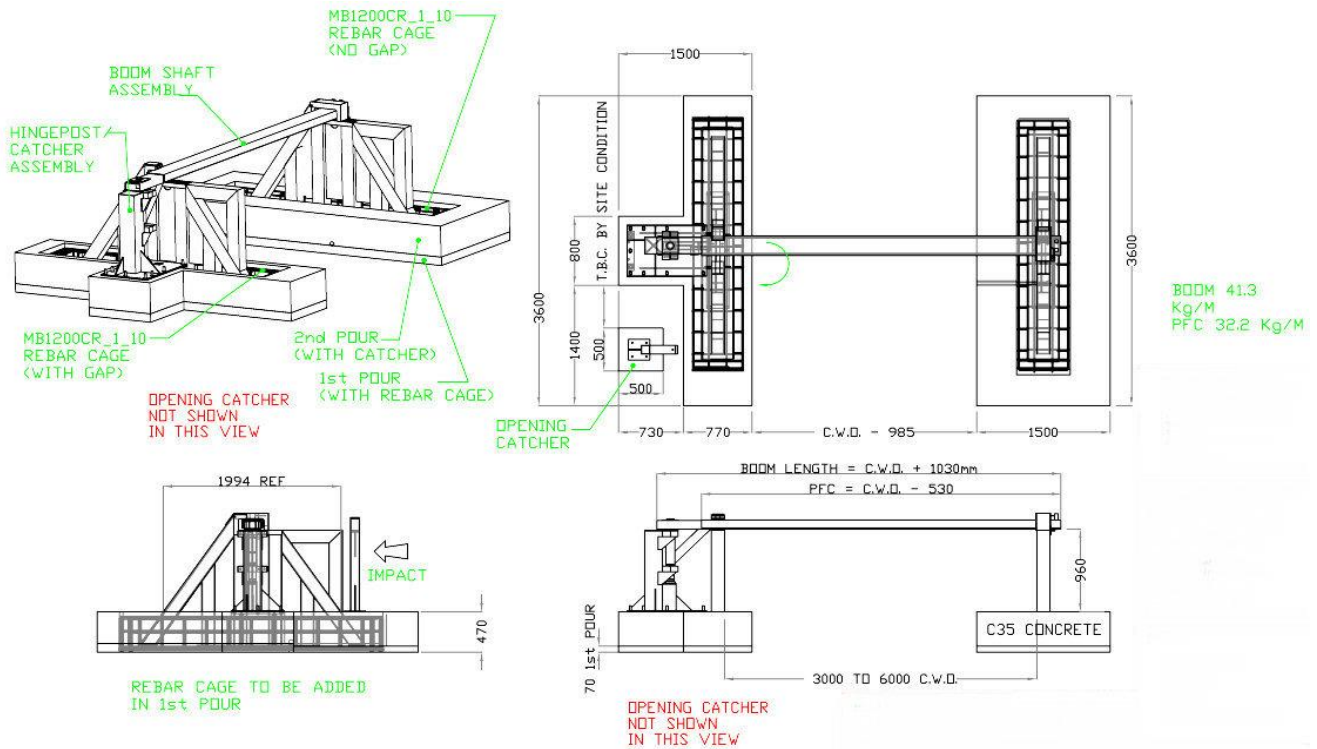


Fig 2.0 Example only

## INSTALLATION

### Health and Safety.



It is the sole responsibility of the owner/user of the equipment to establish which legislation is applicable to the country in which the equipment is installed, and to ensure subsequent compliance with all national and local regulations.

It is also important that the owner/user of the equipment has assessed all equipment and operational hazards, both pre and post-installation of the equipment. It is recommended that this assessment be reviewed before the equipment is set to work.

Where associated equipment is supplied or fitted by others, the seller and purchaser of the equipment are responsible for ensuring that the equipment complies with all Safety Requirements and any associated equipment does not adversely affect the operation or safety of equipment supplied by Avon Barrier Company Limited.

## Personnel.



The vendor should train one or more authorised persons, nominated by the employer, to be responsible for the installation of the equipment.

Training should include instruction on Safe Practices and known hazards.

All installation works must be carried out only by suitably qualified and experienced personnel, who are familiar with the risks and dangers inherent to their particular discipline, and the precautions necessary to minimise them.

Only carry out installation works;

- When suitable warning signs are posted and area is cordoned off from traffic.
- If no hazard exists (e.g. crushing hazard, slipping hazard, etc.)
- With correct tools and equipment.
- After carrying out the appropriate Risk Assessments.

## Installation Guidelines.

Catcher frames require a 470mm foundation.

Reinforcement cages are set in the first pour grade C35 concrete, which should be trowelled flat and level at 400 mm below finished floor level. It is important that the foundations on either side of the roadway are at the same elevation (within 5mm).

When the concrete has set the catcher frames are mounted and levelled, the top face of the gate mounting plate is to be at finished road level. Frames must be set parallel, with boom rests level and in line within 3mm.

Catcher frames, gate foundation plate, gate and boom must **all** be mounted, secured and in correct alignment **before** final concrete pour takes place.

Fill with grade 35 concrete up to finished road level (the gate should be left in the closed position for approximately 5 days after second pour).

Once the opening catcher foundation has cured (Approx 3 days) you can then mount the catcher frame.

Note: The padlock used on the closing mechanism should also be used on the locking pin for the opening catcher.

## Operation and Maintenance.



### HEALTH & SAFETY



***Appropriate risk assessments should be carried out and operational methodologies should be agreed and established before the equipment is operated.***

***The owner should ensure that one or more competent persons are responsible for controlling the access system and advising vehicle users of the correct entry and exit procedures. Training should include instruction on safe practices and known hazards, including normal and emergency use.***

*Training and certification of Operations and Maintenance personnel can also be provided upon request by Avon Barrier Company Ltd.*

## **Periodic Maintenance**

### **Six monthly maintenance**

Check that main shaft assembly is moving centrally between bearing blocks.  
Boom is correctly aligned with catcher frames.  
Crankshaft bearings have been inspected and re-greased. (Replace where required)  
Crankshaft bearings are shimmed correctly and bolts tightened to 280Nm.  
All fasteners have been checked for tightness.  
Check and lubricate padlock.  
Apply grease to locking hood pivot points.  
Check condition of rubber buffers and replace as necessary.  
Check for paint damage and rectify as necessary.

### **Twelve monthly maintenance**

It is recommended that a maintenance schedule is set in place to maintain the Avon GC1100CR High Impact Hinged Gate on a 6 monthly programme.

## **Documents**

The following documents, if not included with this manual, can be obtained upon request from Avon Barrier Company Ltd.

Manual Swing Gate Rebar  
GC1100CR\_103

Installation Sequence for Security Swing Gate  
24559-100

Security Swing Gate Foundations Ronix  
24559-100



**Avon Barrier Company Ltd**

## **WARRANTY AND LIMITATION OF LIABILITY**

Avon Barrier Company Ltd. warrants that during the first 12 months following delivery, the products will be free from defect in material and workmanship.

Avon Barrier Company Ltd's sole obligation under the terms of this warranty shall be to repair (or at Avon Barrier Company Ltd's option, to replace) any defective product/part, without extra charge to the Buyer, provided that,

- (a) Buyer gives Avon Barrier Co. written notice of any such claimed defect within such period of 12 months,
- (b) The products, if installed, were installed by an Avon Barrier Company Ltd authorised installer, and
- (c) The products have not been altered, subjected to misuse, improper maintenance, negligence or accident, or used with parts not authorised by Avon Barrier Company Ltd.

**NO OTHER WARRANTY IS EXPRESSED AND NONE SHALL BE IMPLIED, INCLUDING WITHOUT THE WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR USE.**

**THE FOREGOING STATES THE ENTIRE LIABILITY OF AVON BARRIER CO. LTD. WITH RESPECT TO THE PRODUCTS.**

**IN NO EVENT SHALL AVON BARRIER CO. LTD. BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES WHICH RESULT FROM USE BY BUYER OR ANY OTHER PARTY, OF THE PRODUCTS, AND IN NO EVENT SHALL AVON BARRIER CO. LTD'S LIABILITY EXCEED THE AMOUNTS PAID BY THE BUYER FOR THE PRODUCTS THERE UNDER.**

### **DISCLAIMER**

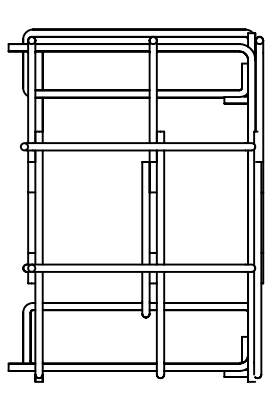
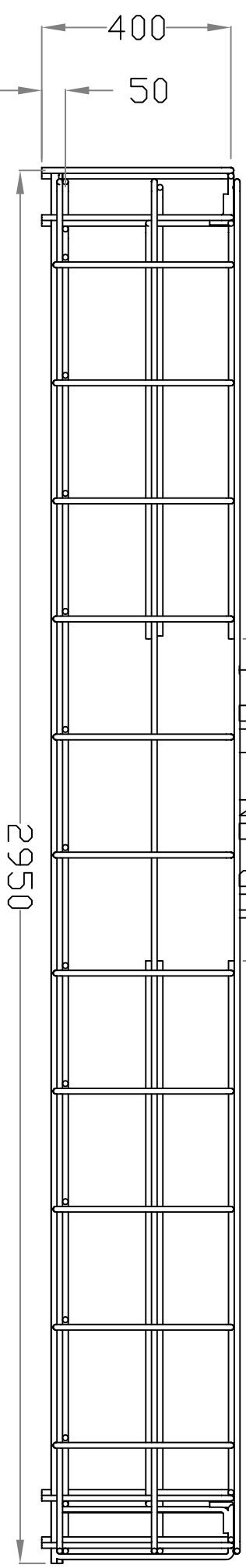
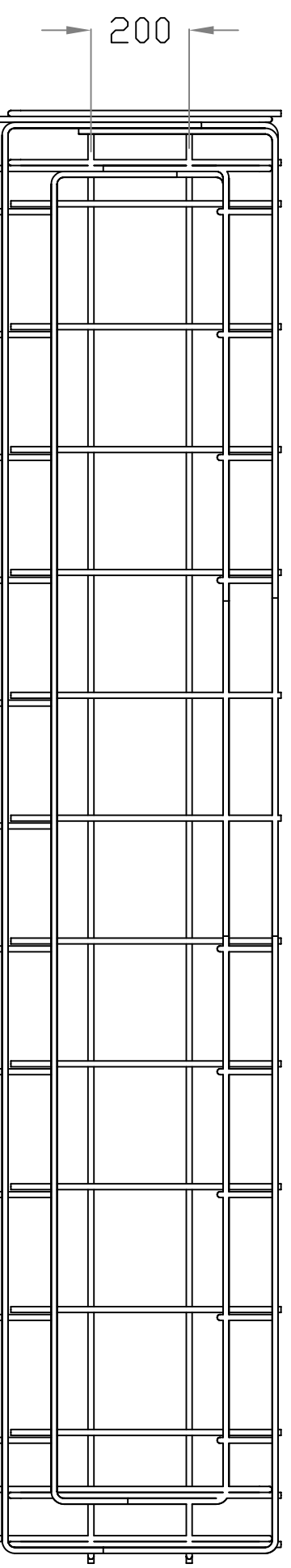
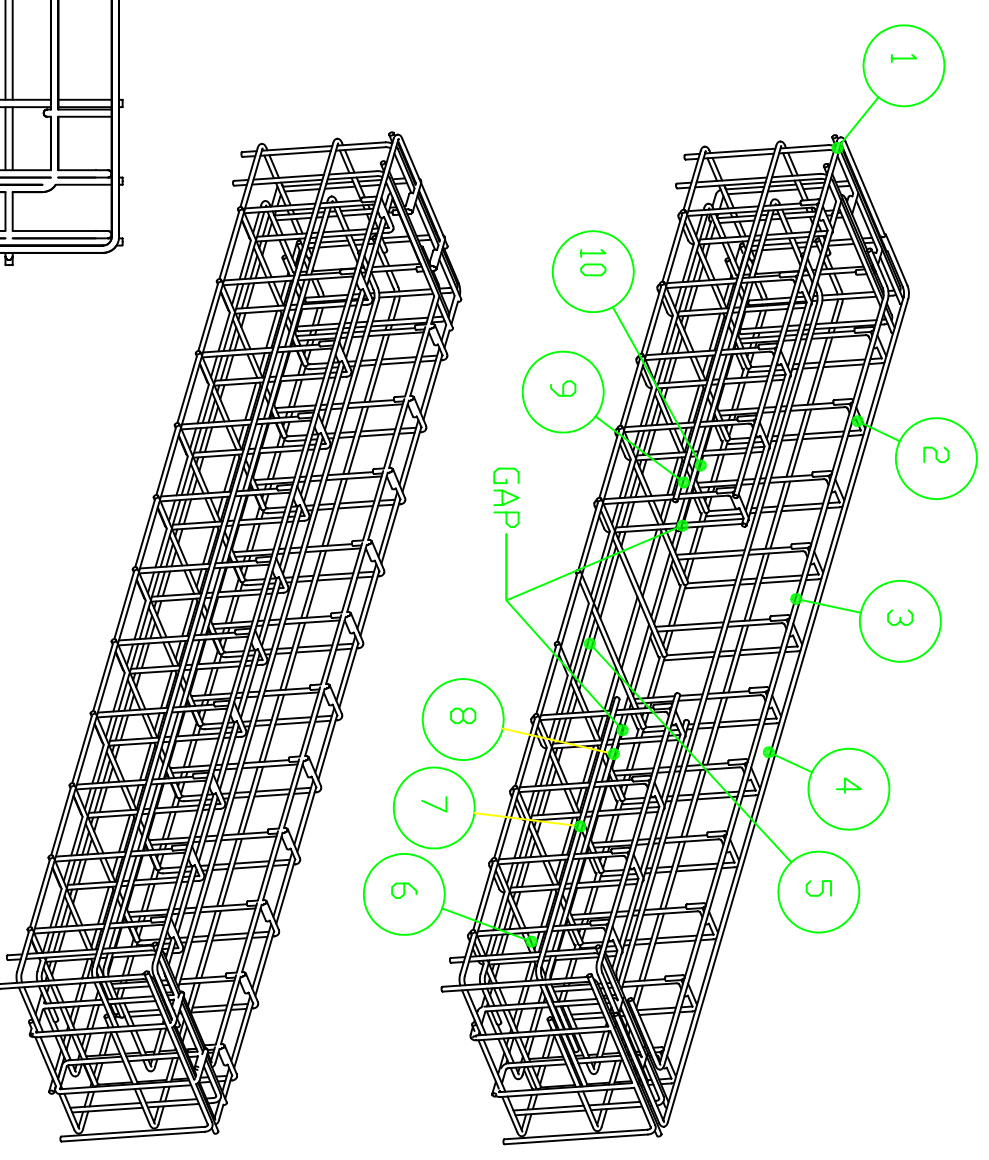
Careful consideration must be given to the selection, placement and design of a Barrier installation, and care must be taken to ensure that approaching vehicles as well as pedestrians are fully aware of the Barrier system and its operation.

Proper illumination, clearly worded signage should be considered.

Avon Barrier Company Ltd. has information available on many such pieces of safety equipment not specifically listed here.

Avon Barrier Company Ltd Nova House 191-195 South Liberty Lane Ashton Vale Trading Estate Bristol England BS3 2TN

10	T12	0	1		11	1150	250		
9	T12	0	1		11	1250	400		
8	T12	0	1		11	880	250		
7	T12	0	1		11	950	400		
6	T12	11	11		00	550			
5	T12	2	2		00	2950			
4	T12	6	4		21	400	2900	200	
3	T12	6	4		21	250	2700	150	
2	T12	26	24		51	420	110	50	50
1	T12	8	8		11	550	450		
ITEM	SIZE	NO GAP	GAP	TOTAL	SHAPE	A	B	C	D



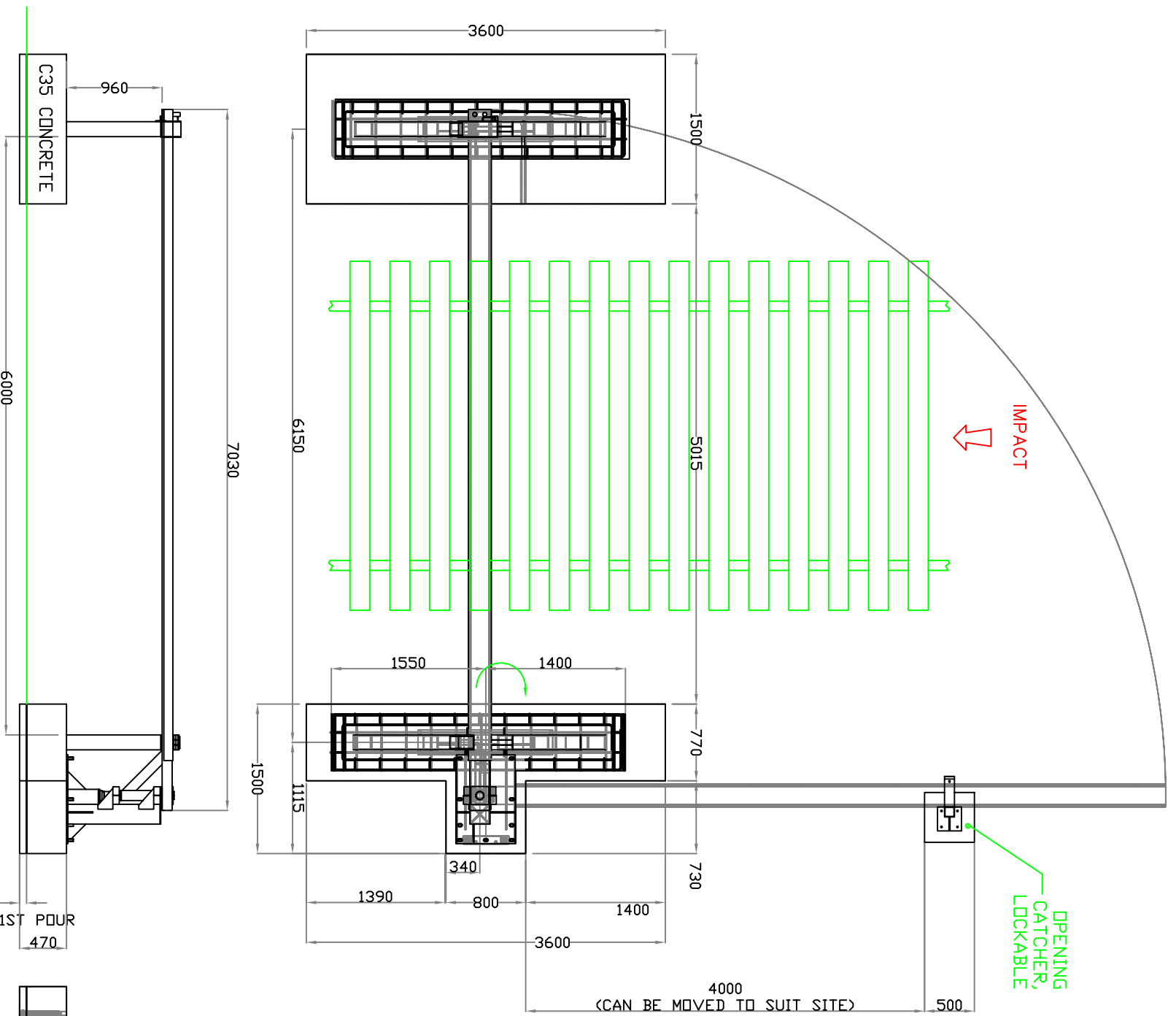
Avon Barrier Company Ltd  
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 E-mail: MECHANICAL@AVON-BARRIER.CO.UK

Drawing Title  
**MANUAL SECURITY SWING GATE REBAR SCHEDULE**

Issue	A	WAS CG1100CR_102	M.J	10/10/08	M.J					
Revision										
Signature										
Date										9/08

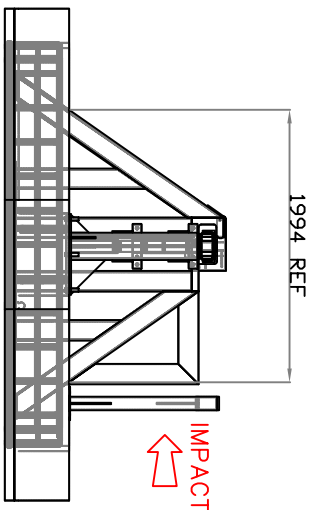
Material	SEE TABLE	Finish	NONE	Scale	1	of	1	Rev.	A
Tolerances	±2	Used on		Drawing No.	GC1100CR_103				
3rd ANGLE PROJECTION		Computer Generated	DO NOT ALTER BY HAND	Issue					





CATCHER ASSEMBLY NOT SHOWN THIS VIEW

REBAR CAGE TO BE ADDED IN 1st POUR



3rd ANGLE PROJECTION  
 COMPUTER GENERATED  
 DO NOT ALTER BY HAND  
 IF IN DOUBT ASK

Material	S275 STEEL		
	BSEN 10025-1-2004		
	BSEN 10219-1-1997		
	BSEN 10029-1-1991		
Finish	PAINT SPEC: SA2.5 SHOT BLAST ZINC RICH PRIMER @ 80 MICRONS / WET SPRAY TOP COAT RAL 1007 @ 120 MICRONS		
Tolerances	±2mm UNLESS STATED		
ISSUE	REVISION	SIG	DATE
C	SHEET 2 ADDED, 70 1st POUR	M.J	2/8/10
B	LOCK CATCHER END	M.J	24/5/10
A	MDD TD CG1100CR_100	M.J	20/5/10

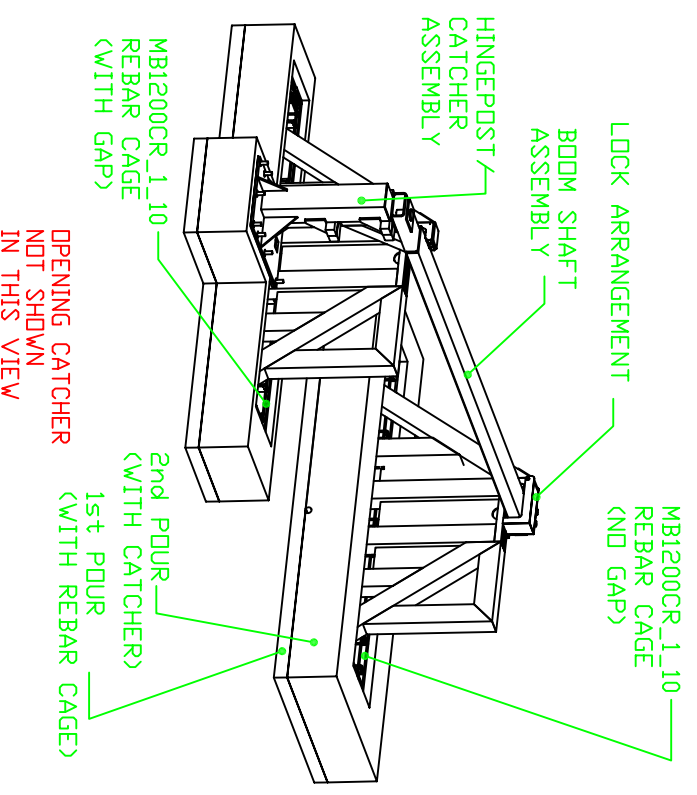
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Drawing Title  
**SECURITY SWING GATE FOUNDATIONS**

RDINIX

24559-100

Scale: NTS  
 Sht. 1 of 2  
 Rev. C



BOOM WEIGHT MUST BE SUPPORTED UNTILL 2nd POUR CONCRETE HAS SET.