



Building Code Clause(s) B1

PRODUCER STATEMENT – PS1 – DESIGN

(Guidance on use of Producer Statements (formerly page 2) is available at www.engineeringnz.org)

ISSUED BY: Structural Engineers NZ Ltd
(Design Firm)

TO: Moddex NZ LLP
(Owner/Developer)

TO BE SUPPLIED TO: Any territorial authority
(Building Consent Authority)

IN RESPECT OF: Structural Design of BS40 Barriers, 1400mm High
(Description of Building Work)

AT: Anywhere in New Zealand
(Address)

Town/City: Anywhere in New Zealand **LOT** DP **SO**
(Address)

We have been engaged by the owner/developer referred to above to provide:

Structural Engineering

(Extent of Engagement)

services in respect of the requirements of Clause(s) B1 of the Building Code for:

All or Part only (as specified in the attachment to this statement), of the proposed building work.

The design carried out by us has been prepared in accordance with:

Compliance Documents issued by the Ministry of Business, Innovation & Employment B1/VM1 & B1/VM4 or
(verification method/acceptable solution)

Alternative solution as per the attached schedule

The proposed building work covered by this producer statement is described on the drawings titled:

BR20 Barrier - Balustrade & Connections Details and numbered 033-005-SK-01 to 033-005-SK-04 revA, together with the specification, and other documents set out in the schedule attached to this statement.

On behalf of the Design Firm, and subject to:

Refer attached schedule

- (i) Site verification of the following design assumptions
- (ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds that a) the building, if constructed in accordance with the drawings, specifications, and other documents provided or listed in the attached schedule, will comply with the relevant provisions of the Building Code and that b), the persons who have undertaken the design have the necessary competency to do so. I also recommend the following level of construction monitoring/observation:

CM1 CM2 CM3 CM4 CM5 (Engineering Categories) or as per agreement with owner/developer (Architectural)

I, Sadeer Kattan am: CPEng 1013983 # Reg Arch #
(Name of Design Professional)

I am a member of: Engineering New Zealand NZIA and hold the following qualifications: BE (Hons) CPEng CEng

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000*.

The Design Firm is a member of ACENZ:

SIGNED BY: Sadeer Kattan (Signature) Sadeer Kattan Digitally signed by Sadeer Kattan Date: 2021.03.08 15:26:36 +13'00'
(Name of Design Professional)

ON BEHALF OF Structural Engineers NZ Ltd Date: 08/03/2021
(Design Firm)

Note: This statement shall only be relied upon by the Building Consent Authority named above. Liability under this statement accrues to the Design Firm only. The total maximum amount of damages payable arising from this statement and all other statements provided to the Building Consent Authority in relation to this building work, whether in contract, tort or otherwise (including negligence), is limited to the sum of \$200,000*.

This form is to accompany **Form 2 of the Building (Forms) Regulations 2004** for the application of a Building Consent.
THIS FORM AND ITS CONDITIONS ARE COPYRIGHT TO ACENZ, ENGINEERING NEW ZEALAND AND NZIA

SCHEDULE

*From Page 1:

On behalf of the design firm and subject to site verification of the following design assumptions:

1. The supporting structure, as designed by others, is able to withstand the applied loads. This must be effectively communicated with the building owner or manager. SENZ takes no responsibility should this not be followed.
2. The installation of the handrails is in accordance with the limits and specifications as set out on the drawing listed below.
3. The handrails are designed for loading 0.35 kN/m line load or 0.6 kN concentrated load on the top rail, as per AS/NZS 1657.

DRAWINGS:

Drawing Number	Sheet	Revision	Date	Description
033-005-SK-01	1	A	08/03/2021	Balustrade & Connections
033-005-SK-02	1	A	08/03/2021	Balustrade & Connections
033-005-SK-03	1	A	08/03/2021	Balustrade & Connections
033-005-SK-04	1	A	08/03/2021	Balustrade & Connections

BS40

Barrier Specifications

Top Rail / Balustrade Infill

BS40



Key features

- > Modular flexibility
- > No-weld assembly
- > Flat pack delivery
- > Reduced corrosion
- > Colour options
- > Available ex-stock
- > BIM & CAD Support

Applications suited to

- > Residential Class Excluding Balconies & Roofs
- > Industrial platforms & Access ways for maintenance and operation personnel only.

Specification Summary

Supply and install the proprietary BS40 barrier system to substrate according to Moddex specifications, or by a Moddex accredited installer.

Technical Data

Material

Stanchions, rails & balustrades	Steel/grade C250 & 350
Clamp fittings	Malleable Cast iron
Clamp locking screws	Stainless steel (304)

Protective coating

Stanchions, rails and balustrades	G390 Hot-dip Galvanized (min 390g/m ²)
Clamp fittings	Hot-dip Galvanized with patented protective coating on threads
Optional	Powder coating and paint specs

*The standard process for Powder Coated and Painted handrail products is as follows: black steel is used for fabrication. The steel is sand blasted and a zinc primer coating is applied. The powder coat / paint coat is then applied over the zinc primer creating a dual shield coating with a decorative finish.

Dimensions

Variable depending on building/application/code

Stanchions

Diameter	48.3mm OD 41.9mm ID
Nominal Thickness	3.2mm - 4.0mm (loading dependent)

Rails

Diameter	48.3mm OD 41.9mm ID
Nominal Thickness	3.2mm

Balustrade

Baluster	12mm
Baluster Centres	100mm (88mm gap)
Heavy Duty Baluster	16mm
Baluster Centres	100mm (84mm gap)

Clamp fittings

Thickness	5.0mm (approx)
Locking screws	M12 x 1.75 x 11mm - DEXX Drive

Weight

Variable depending on building/application/code

Stanchion with clamps	7.2 to 8.0kg
Rail @ 6.0m	21.6kg
Balustrade Panel @ 2.0m	29kg

Fixings

Stanchion attachment to

Concrete	M12 galvanized mechanical concrete anchor
Structural steel	M16 galvanized high tensile bolt set
*Other Fixing options are available on request	

Compliance

Moddex balustrades and handrails are designed and manufactured in accordance with Austroads Guide to Road Design and relevant statutory WHS Codes of Practice/Guidelines. Galvanized to Australian Standard AS/NZS 4680:2006

Testing

Stringent vibration endurance tests have been performed and independent testing has been carried out to confirm the suitability of the Moddex system in maritime conditions.

Warranty

5 years from date of purchase subject to correct installation, use and maintenance in accordance with manufacturer's specifications and recommendations, unless otherwise negotiated at the time of purchase.

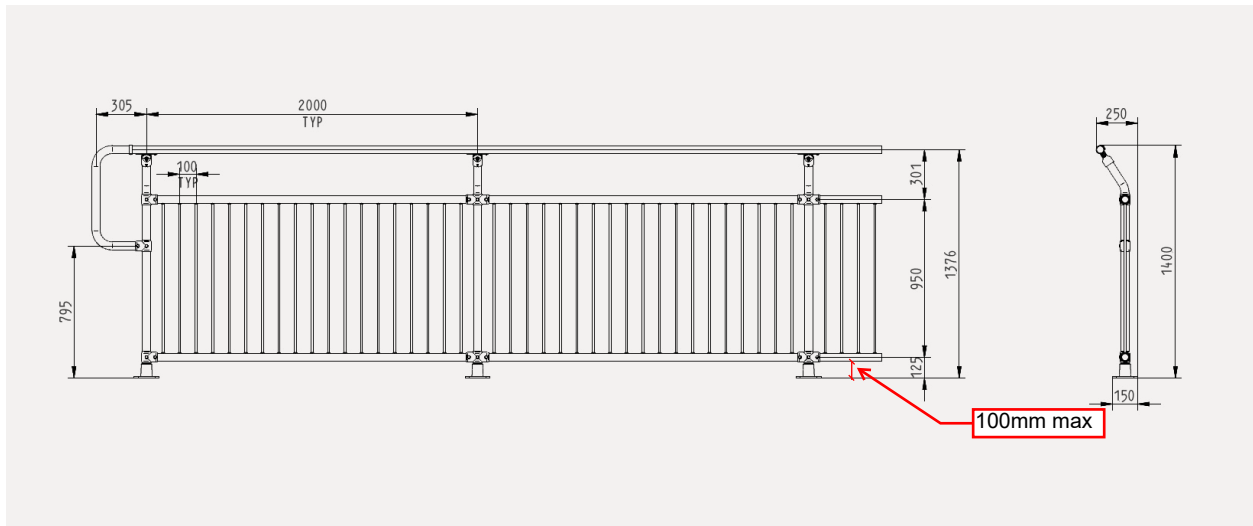
— Refer maintenance manual

Inspection & Maintenance

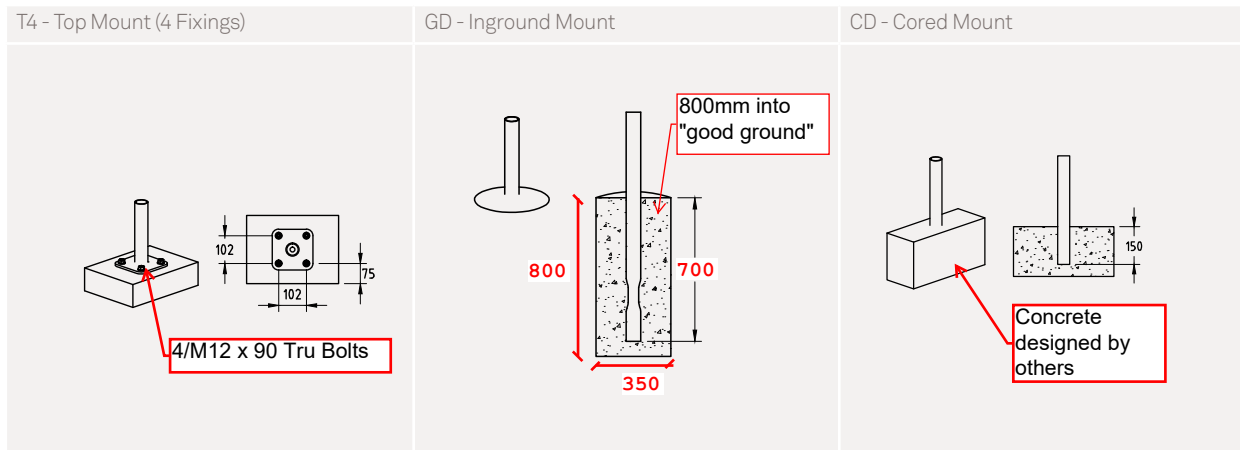
Visual inspection for any damage or loose fixings must be done periodically and prior to use. No certified maintenance required. Basic wear and tear preventative maintenance is recommended, as per manufacturer's specifications and recommendations.

— Refer maintenance manual

Technical Information



Mount Dimensions



Standard References

BASIS OF DESIGN

1. DESIGN LIFE	50 YEARS MINIMUM	
2. BUILDING OCCUPANCY B, E		
3. LOADINGS	AS/NZS 1170.1 : 2002 - TABLE 3.3 AS 1657 : 2013 - CL6.1	
4. LIVE LOADINGS	LINE CONCENTRATED INFILL	0.35 kN/m 0.6 kN N/A

GENERAL

- THESE SPECIFICATIONS SHALL TAKE PRECEDENCE UNLESS OTHERWISE ADVISED BY THE DESIGN ENGINEER
- COMPLY WITH CONTRACTORS HSE PLAN.
COMPLY WITH HEALTH & SAFETY IN EMPLOYMENT ACT & REGULATIONS.
MAINTAIN SAFE SITE AND WORK PRACTICES AT ALL TIMES.
- ALL WORK AND MATERIALS SHALL COMPLY WITH THE BUILDING ACT & REGULATIONS.
- THE BUILDING DESIGNER IS RESPONSIBLE FOR ENSURING THE NECESSARY SUPPORTING STRUCTURE IS PROVIDED FOR THE BARRIER SYSTEM.
- THE SUPPORTING STRUCTURE SHALL BE DESIGNED FOR THE MINIMUM DESIGN LOADS SPECIFIED IN THE BASIS OF DESIGN.
- THE SUPPORTING STRUCTURE SHALL BE DESIGNED TO ACCOMMODATE THE SPECIFIED BARRIER ANCHORS.
- OBTAIN BUILDING CONSENT AS REQUIRED, CALL FOR ALL SCHEDULED INSPECTIONS AND FINAL INSPECTION FOR CODE OF COMPLIANCE ON COMPLETION.
- CHECK ALL DIMENSIONS AND LEVELS ON SITE BEFORE STARTING CONSTRUCTION WORK.
REFER ARCHITECTURAL DIMENSIONING FOR LAYOUT AND LEVELS.
REFER ENGINEERING DIMENSIONING FOR DETAILS.
- ALL COMPONENTS OF THE MODDEX BARRIER SYSTEM INCLUDING FIXINGS AND ANCHORS SHALL BE SUPPLIED BY MODDEX NZ.

Important Note: Failure to supply and/or install proprietary product in accordance with above Standards and codes, specification and instructions, voids complete system certification and/or warranty.

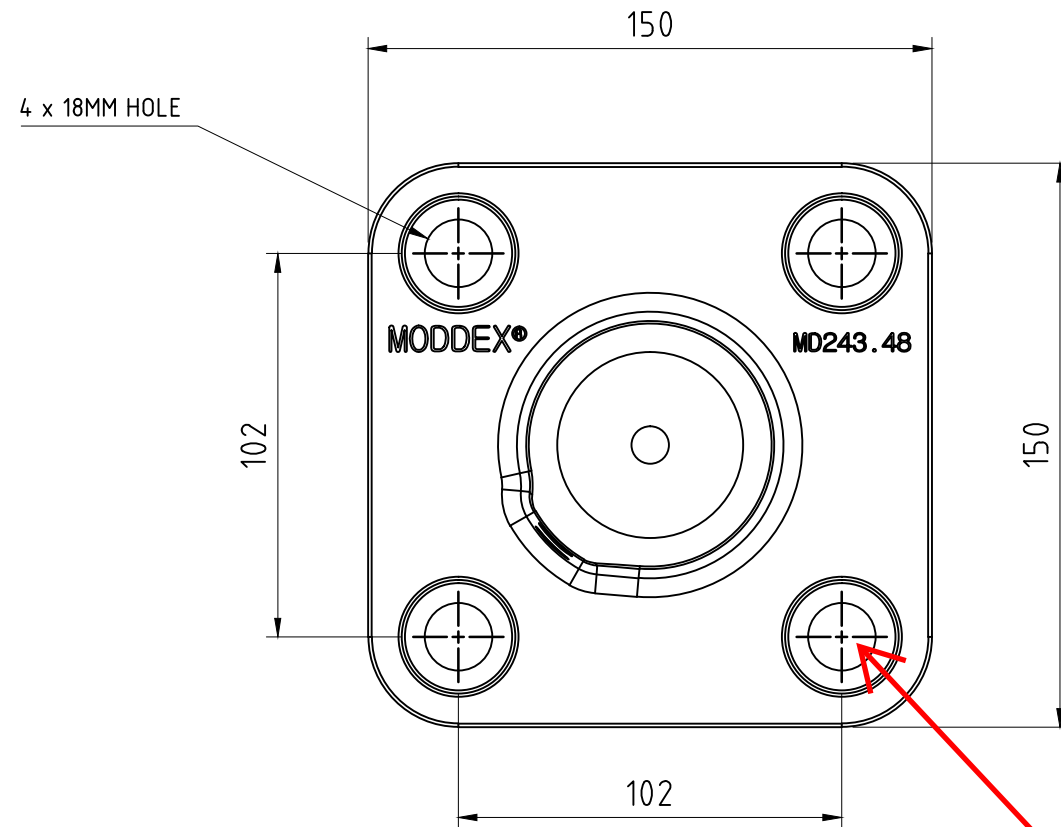
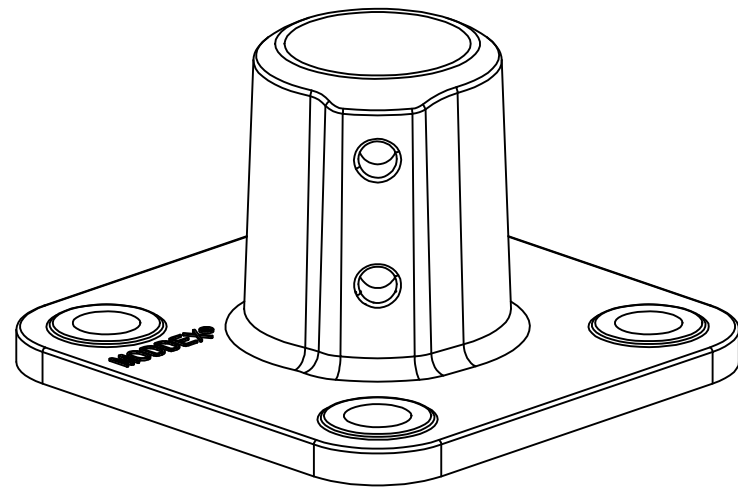
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For information or technical support please contact us
 T 1800 663 339 (AU)
 T 0800 663 339 (NZ)

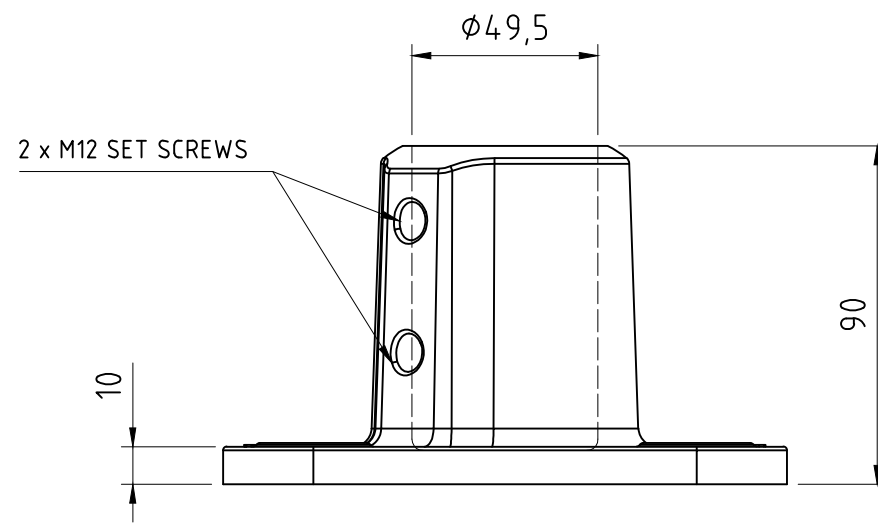
moddex.com.au | moddex.co.nz

BS40

Standard BS40 Barrier - Balustrade & Connections Details
 033-05-SK-03 rA



4/M12 x 90
Tru Bolts



ALL DIMENSIONS IN MILLIMETERS
 STANDARDS TOLERANCE ±1mm
 MATERIAL FINISH: MINIMUM OF 1x1 BEVEL ON ALL EDGES
 GALVANIZED TO: AS/NZS 4680:2006

No.	REVISION	DRAWN	DATE

moddex

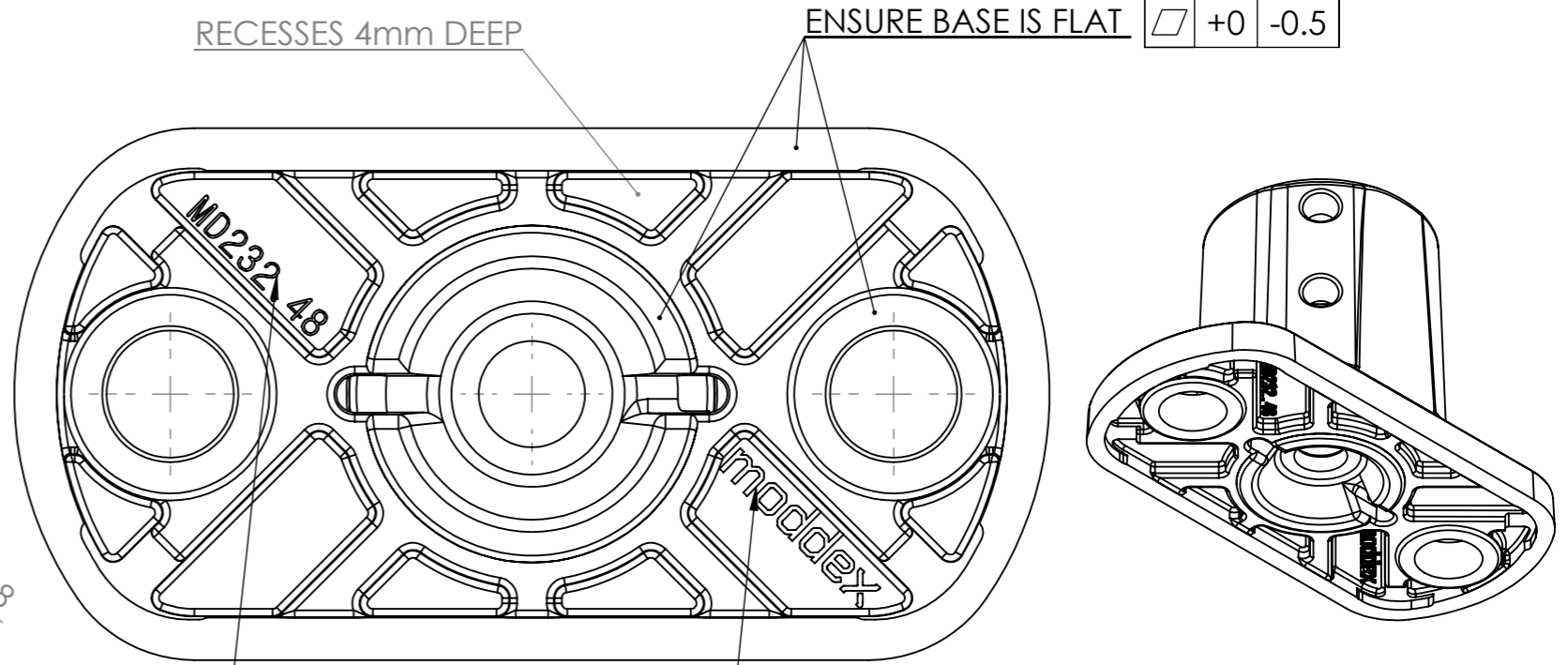
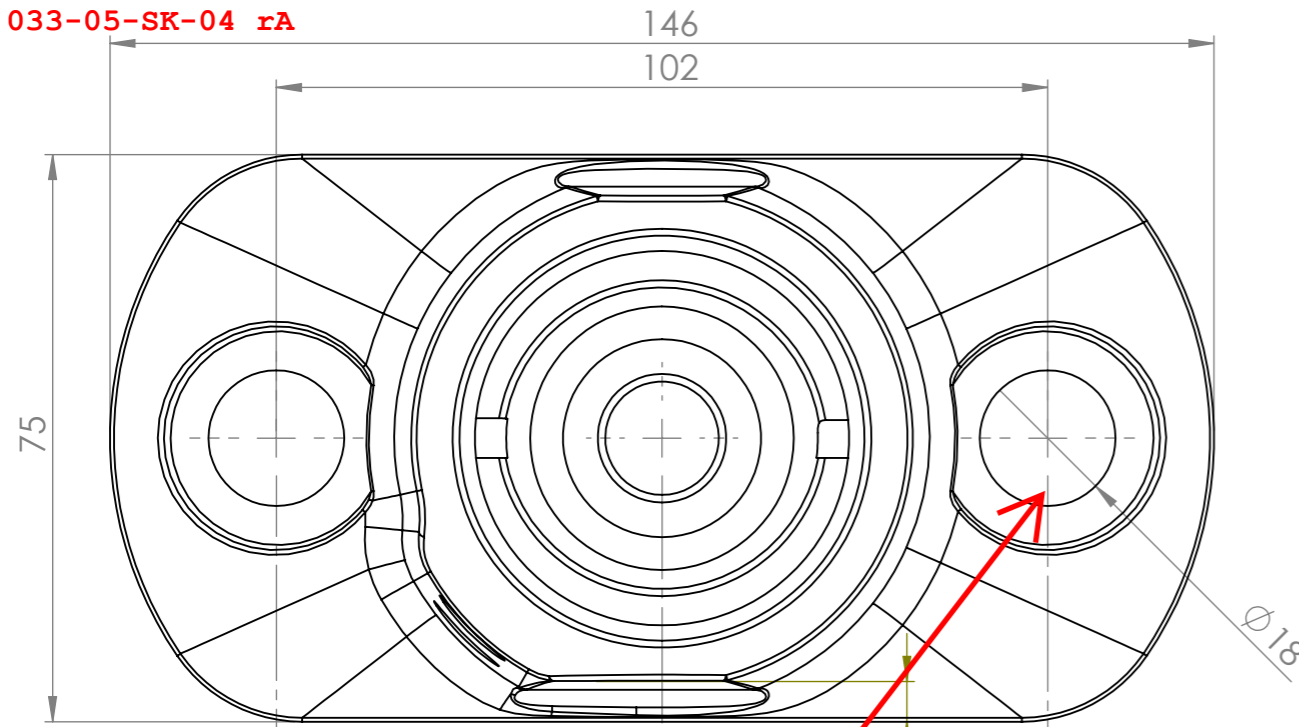
44 Kalman Drive
 BORONIA VIC 3155
 T\ 03 8727 9055
 E\ technical@moddex.com.au

SCALE	1:2	A3
DRAWN	SRT	24/04/15
CHECKED		
DESIGNED		
APPROVED		

MODDEX 4 HOLE BASE FLANGE
 HDG - D48

DRAWING/PART No.	
MD243.48	
Sheet 1 of 1	
ISSUE	

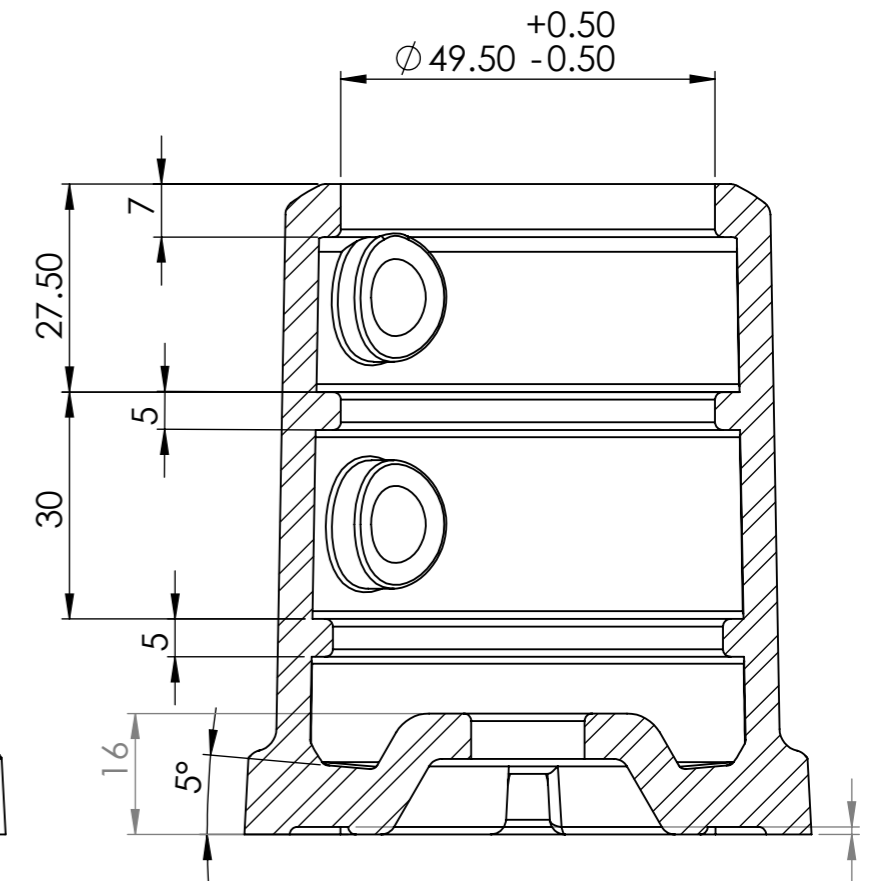
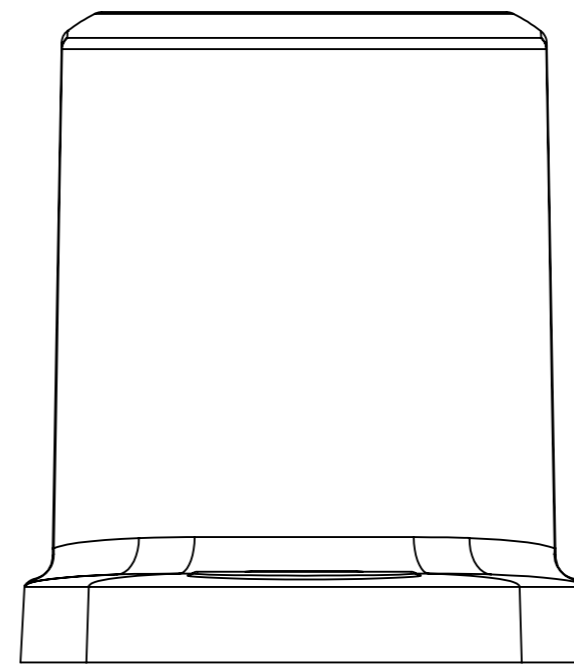
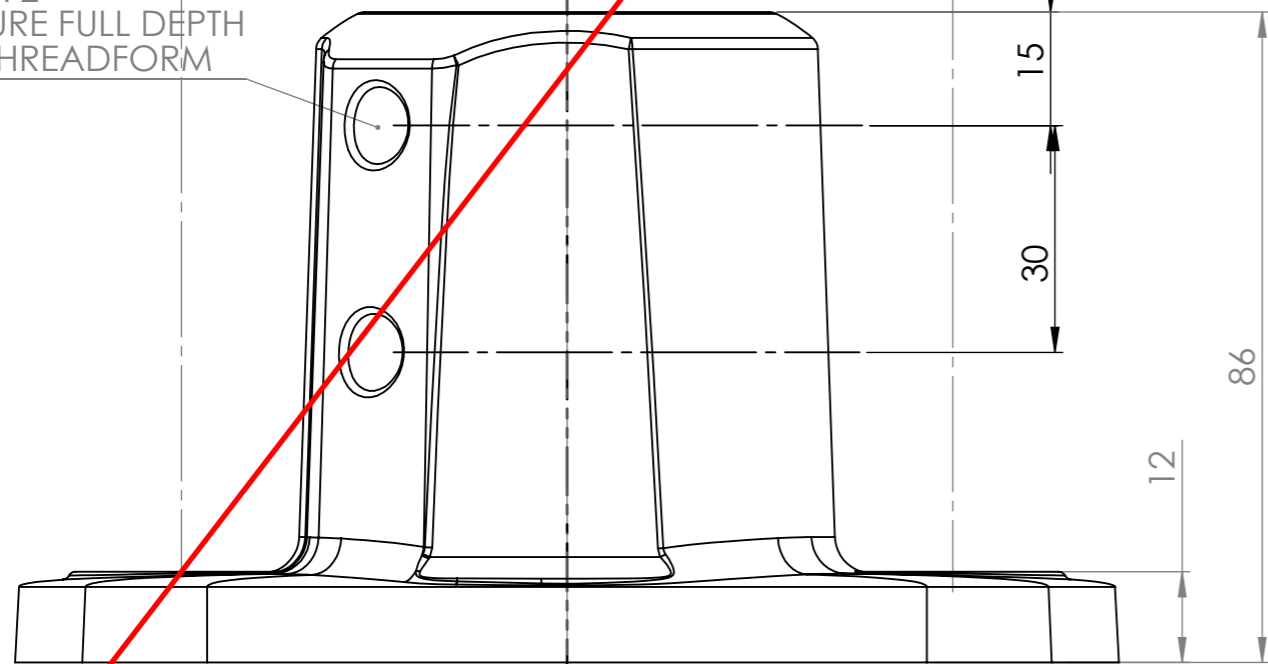
Standard BS40 Barrier - Balustrade & Connections Details
033-05-SK-04 rA



TAP M12 X 1.75
 TYP.X 2
 ENSURE FULL DEPTH
 OF THREADFORM

4mm GULIM CHE FONT USED FOR
 PART NUMBER PROUD 0.5mm

WORDMARK PROUD 0.5mm
 REF. FontBlockss2.DOCUMENT



**2/M16 Threaded Rods,
 Drilled 110mm into concrete
 & Epoxied with EPCON C6
 Series Chemset**

DIMENSIONS FOR CHECK REFERENCE ONLY
 FOR PART DIMENSIONS
 REFER SolidWORKS PART DATA

WALL SECTIONS 4.5mm TYP.
 DRAFT ANGLE 3° TYP.

No.	REVISION	DRAWN	DATE
1		IKW	



SCALE:1:1 at A3		
DRAWN		APR 2013
CHECKED	<Dwn By>	<Date>
DESIGNED	<Dwn By>	<Date>
APPROVED	<Dwn By>	<Date>

STANCHION BASE	
SAND-CAST-D48	
MATERIAL:	DUCTILE IRON ASTM A536 65-45-12
FINISH:	H.D.GAL
WEIGHT:	1225 gms.

DRAWING No.	
MD232.48-v2	
LAST EDIT 12/08/2015	
ISS:	B
A3	