

BOUNDARY BOX - STACKER



BBBEE Level 1 Contributor

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1. APPLICATION

This document will describe the minimum requirements for handling and storing Dartcom duct products to mitigate the risk of damage to the product or personal injury.

- Limited footprint required on paving surface
- Split box on existing or new lines
- Limited or minimal road traffic

The colour of the lid can be changed to customer specifications. Branding on the lids can also be done.

Currently the lid comes in Green.

2. PRODUCT SPECIFICATION

Material:	Poly Prop UV Stabilised
Colour:	Black Body / Box and Base. Green Lid
Thermal Resistance:	Plastic boxes do not deform at temperatures from -30°C to +80°C
Cavities:	1 Each
Total weight:	1218 g
Re-Usable:	Yes
Recyclable:	Yes
Hazardous:	No
Manufacturing process:	Injection Moulding
Locking Mechanism:	HEXAGON HEAD SCREW M10-1.5 X 30 STAINLESS STEEL and HEXAGON NUT M10 STAINLESS STEEL HEXAGON HEAD SCREW M10-1.5 X 30 Nylon
Quality Standard:	ISO 22000:2018


3. LOAD TEST

Determines what will happen if a load is distributed evenly over the whole lid of the box with the box installed as specified by the manufacturer

LOADING	7KN	PLANTED	PASSED
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4. TEST CERTIFICATES



4.1 On site testing

	<p>PO Box 4267, Tyger Valley, 7536, Western Cape, South Africa 45 <u>Vibon</u> Road, Brackenfell, 7460, Western Cape, South Africa</p> <p style="text-align: right;">Tel: +27 (0) 21 981 9197 Fax: +27 (0) 86 520 6763 Email: admin@ssystemsgroup.com</p>
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ON SITE WITNESS TESTING FOR 250dia MANHOLE COVER & FRAME "BOUNDARY BOX"




S SYSTEMS PTY LTD		CONTACT PERSON: GERT SAUNDERS
CONDITION OF SAMPLE:		
<p>The sample arrived in a suitable good condition for testing. Testing was conducted in accordance with the criteria and test method according to engineers' specification that the manhole cover and frame complies with 7kN Low Duty strength. The following results are based solely on the product samples provided by the supplier.</p>		
RESULTS:		
<p>The manhole cover and frame "boundary box" as tested meets the requirements of the client according to the engineers' specification issued by Dartcom SA Pty Ltd.</p>		
ATTENDANCE REGISTER		
Name	Company	Position
Mr P van der Merwe	S Systems Pty Ltd	Production Manager
Mr J Beukes	S Systems Pty Ltd	Quality Manager
Mr Louwrens Jansen	S Systems Pty Ltd	Assistant Technician

PRODUCT DESCRIPTION		
250dia manhole cover and frame "boundary box"		
METHOD OF TEST AND CRITERIA		
Complete assembly was installed in the compression testing and subjected to gradually increasing compressive force using a 150mm diameter steel indenter which was placed on the top surface centre. A load of 7kN was applied and hold for 30 seconds. Top and bottom surface were inspected for visible cracks or any damages.		
ITEM	DATE	REMARKS
MANUFACTURING DATE OF MANHOLE	16/03/2020	Approved by Production Manager
DIMENSIONS OF MANHOLE	250dia	Approved by Production Manager
HEIGHT MAX OF MANHOLE	50MM	
HEIGHT OF LID	28.28MM	
THICKNESS OF LID	6.16MM	
WEIGHT TOTAL	0.400KG	
TESTING EQUIPMENT		
BAR	686.46	
TONS	7kN	No cracks were visible. No rupture of failure on product.
DURATION OF TEST	30 seconds	
*Calibration Certificate attached		

DATE OF TEST: 17 March 2020	
DATE SAMPLE RECEIVED: 16 March 2020	
AUDIT TEAM:	SIGNATURE:
Production Manager: Mr P van der Merwe	
Assistant Technician: Mr Louwrens Jansen	

TEST SAMPLE DESCRIPTIONS / QUALITY CONTROL AUDIT RESULTS

MANHOLE COVER AND FRAME:

BOTTOM SURFACE LID	TOP SURFACE LID
	
FRAME BOTTOM	FRAME TOP
	
ASSEMBLED VIEW	
	

SAMPLE PREPARATION:

**TEST EQUIPMENT:
PRESS TESTING MACHINE – OWN MANUFACTURE AND WIKA GAUGE**

Max press load – 20 Ton

**SAMPLE PREPARATION, TEST METHOD AND CRITERIA:
SAMPLE PREPARATION:**

A 150mm diameter steel indenter was placed on the top surface centre.

TEST METHOD AND CRITERIA:

A load of 7kN was applied and hold for 30 seconds.
Top and bottom surface were inspected for cracks.

TEST SET-UP


SAMPLE 1



TEST SET-UP

SAMPLE 1



TEST RESULTS SUMMARY – LOAD TEST		
TEST LOAD APPLIED		
SAMPLE NR	LOAD AFTER 30 SECONDS, KG	RESULTS / OBSERVATIONS
1	7 kN (700kg)	Passed – 30 seconds load, no cracks
2	7 kN (700kg)	Passed – 30 seconds load, no cracks
3	7 kN (700kg)	Passed – 30 seconds load, no cracks
AFTER LOAD TEST SAMPLE 1	AFTER LOAD TEST SAMPLE 2	AFTER LOAD TEST SAMPLE 3
		

In the event of future changes to the above referenced test standards, it is the responsibility of S Systems Pty Ltd to determine whether additional testing or updating of past testing is necessary to verify that the product remains compliance with the standards.



GK SAUNDERS
MANAGING DIRECTOR

17 MARCH 2020

Registration No.: 2000/025676/07 | VAT Registration No.: 4680192186 | Director: GK Saunders

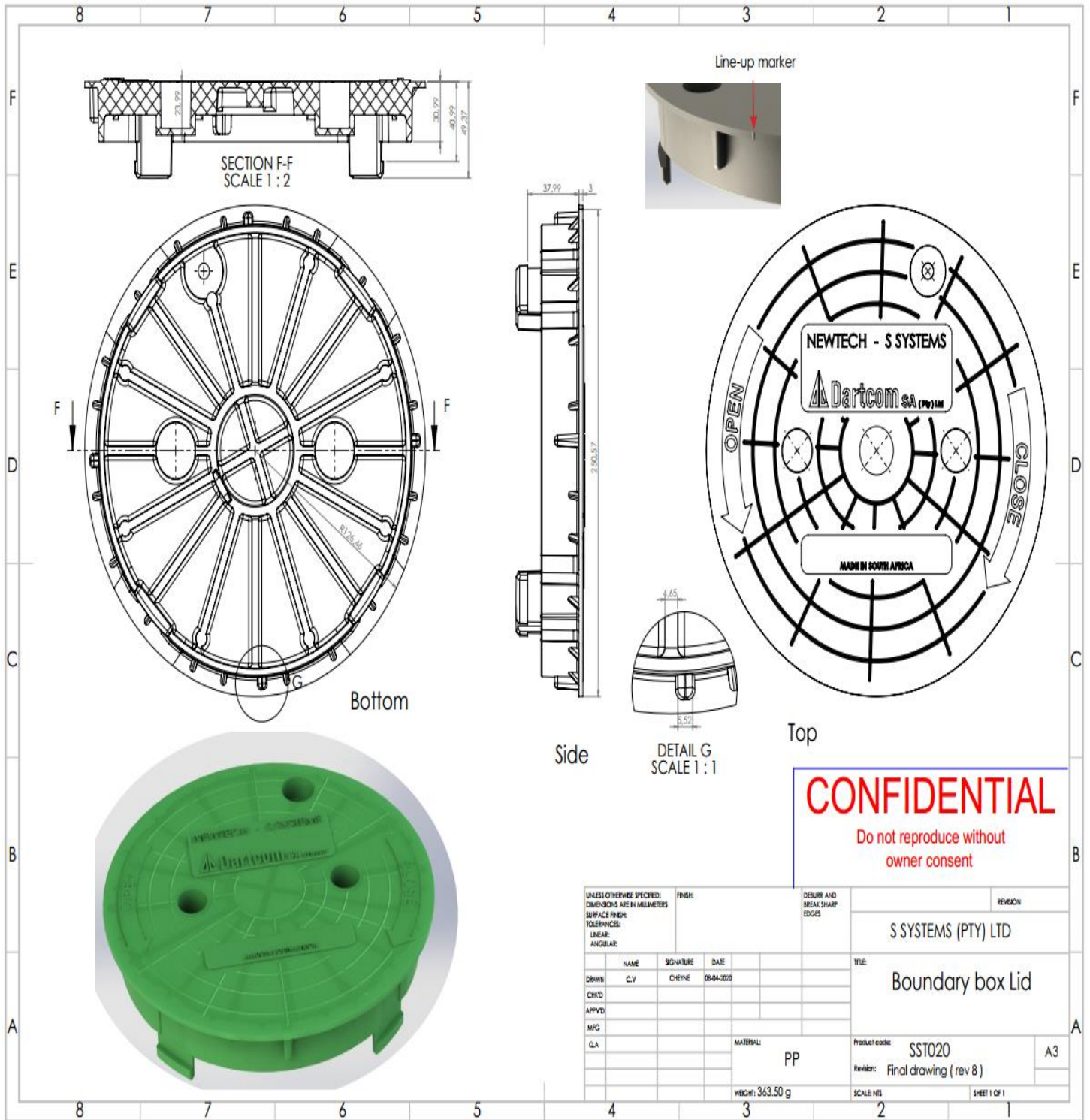
4.2 External Testing



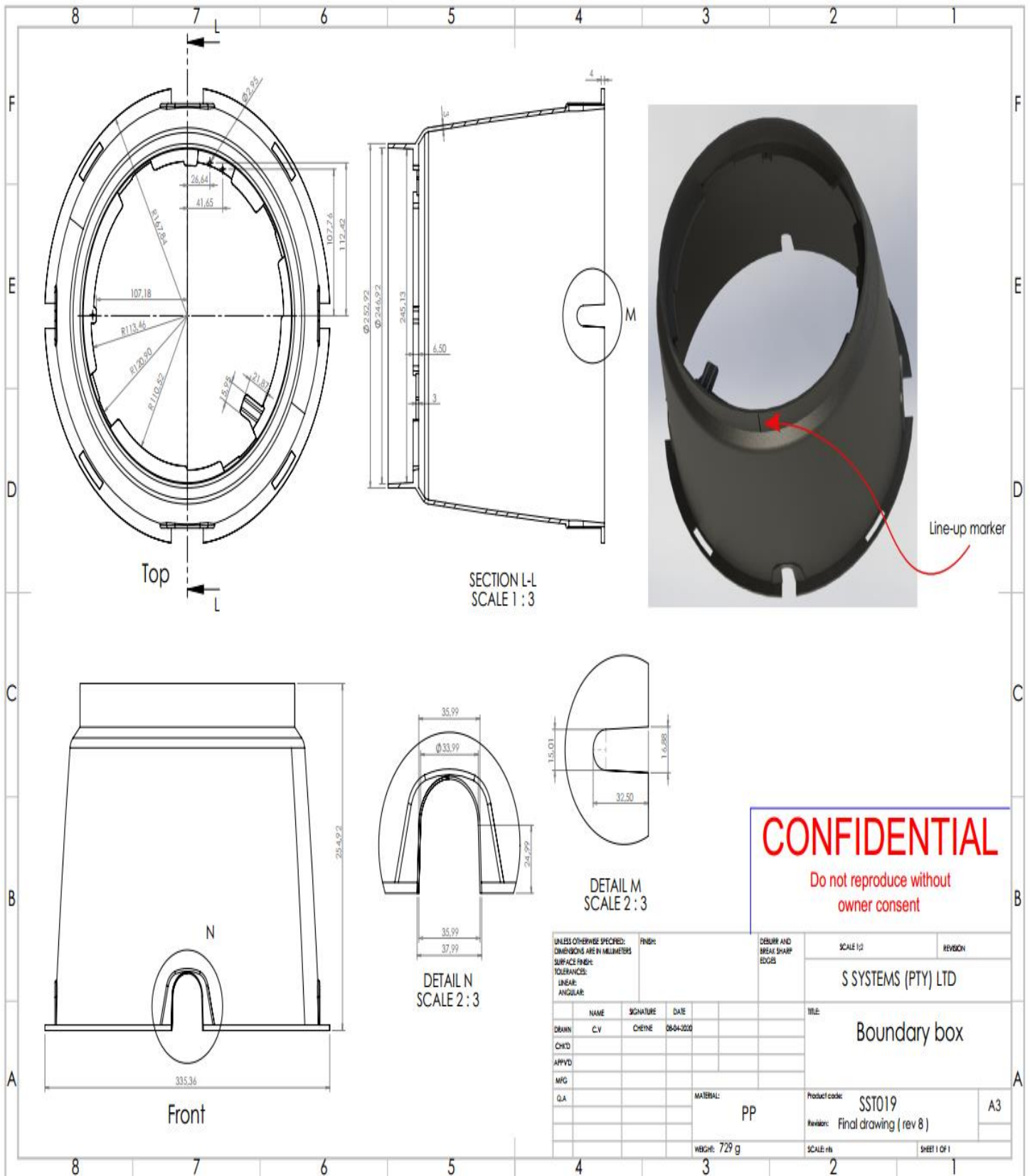
250dia boundary box
 external testing.pdf

5. DRAWINGS

5.1 LID



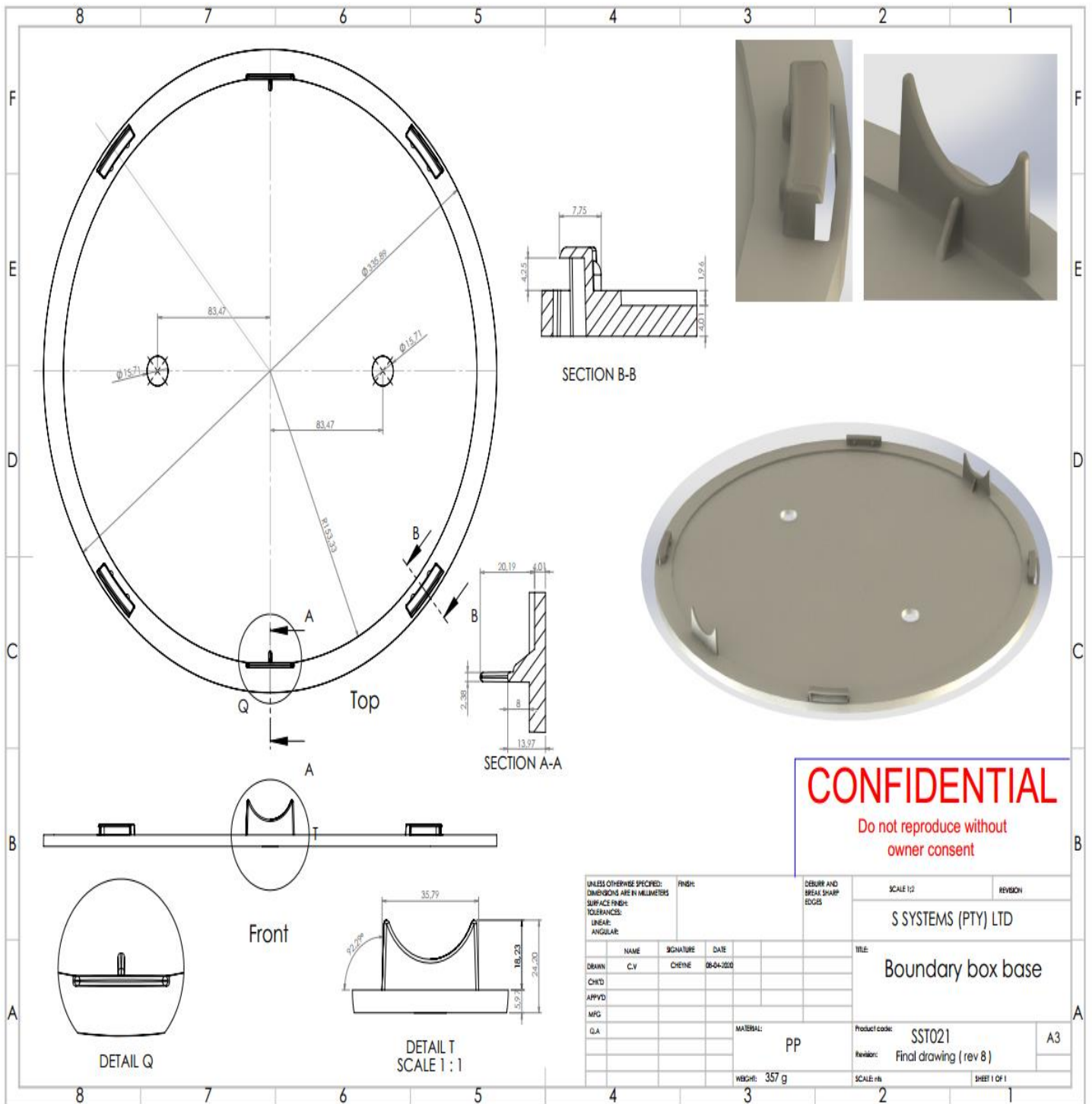
5.2 Box



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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		FINISH:	DEBURR AND BREAK SHARP EDGES	SCALE 1:2	REVISION
SURFACE FINISH:				S SYSTEMS (PTY) LTD	
TOLERANCES:				Boundary box	
LINEAR:				Product code:	SST019
ANGULAR:				Material:	PP
DRWN:	NAME	SIGNATURE	DATE	Weight:	729 g
CHKD:	C.V	CHRYNE	06-04-2020	Product code:	SST019
APPVD:				Revision:	Final drawing (rev 8)
MFG:				SCALE:	1:1
Q.A:					SHEET 1 OF 1

5.3 Base



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UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS			FINISH:	DEBURR AND BREAK SHARP EDGES	SCALE: 1:1	REVISION:
SURFACE FINISH:					S SYSTEMS (PTY) LTD	
TOLERANCES:					TITLE: Boundary box base	
LINEAR:					Product code: SST021	
ANGULAR:					Revision: Final drawing (rev 8)	
NAME	SIGNATURE	DATE		MATERIAL:	PP	A3
DRAWN: C.V	CHEINE	08-04-2020		WEIGHT:	357 g	
CHK'D:				SCALE:	1:1	SHEET 1 OF 1
APP'VD:						
MFG:						
QA:						

END