

Rediweld & Connected Kerb 'Gecko Assembly' Quality Document (Rev 01) June 2020



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Project Scope

From an initial meeting with Connected Kerb (the customer) & taking into consideration a moderate introductory sketch provided by them at the opening meeting. Rediweld set about brainstorming conceptual ideas to offer a range of potentially & suitable 'Post Mounted Product' options. Each option featuring different style of part geometry & ergonomic aesthetics in keeping with its desired use & sympathetic to certain surroundings.

The project Scope on behalf of Connected Kerb is to generate a selection of 'Product Range' best suited to the criteria for EV Charging units, design, developed and manufactured to support parked vehicles on the streets within certain communities. A more detailed approach was needed on the 'Gecko Assembly' as so took priority first. Connected Kerb invited Rediweld to develop a 'Post' mounted Electric Vehicle Charger for municipal use in the public domain.

The unit needed to be a Low Cost, Recyclable product designed for ease of manufacture and would be situated and function on the streets, therefore demanding to be robust and durable, with good environmental characteristics such as; impact, weathering, chemical and UV resistance properties. Material selection is of utmost importance when considering a working product in many different types of suburb situations.

A well-matched material is to be selected to endorse most of these requirements for those reasons & more particularly for; excellent UV capabilities, low moisture absorption, good dimensional and low warpage stability as the component needs to be well designed with uniform wall section. These extra properties help to ensure good process & product capability & conformity when considering; design, development, manufacturing & assembly of the product too in maintaining excellent fit, form & function, eliminating the risk of product fatigue & failure when in service.

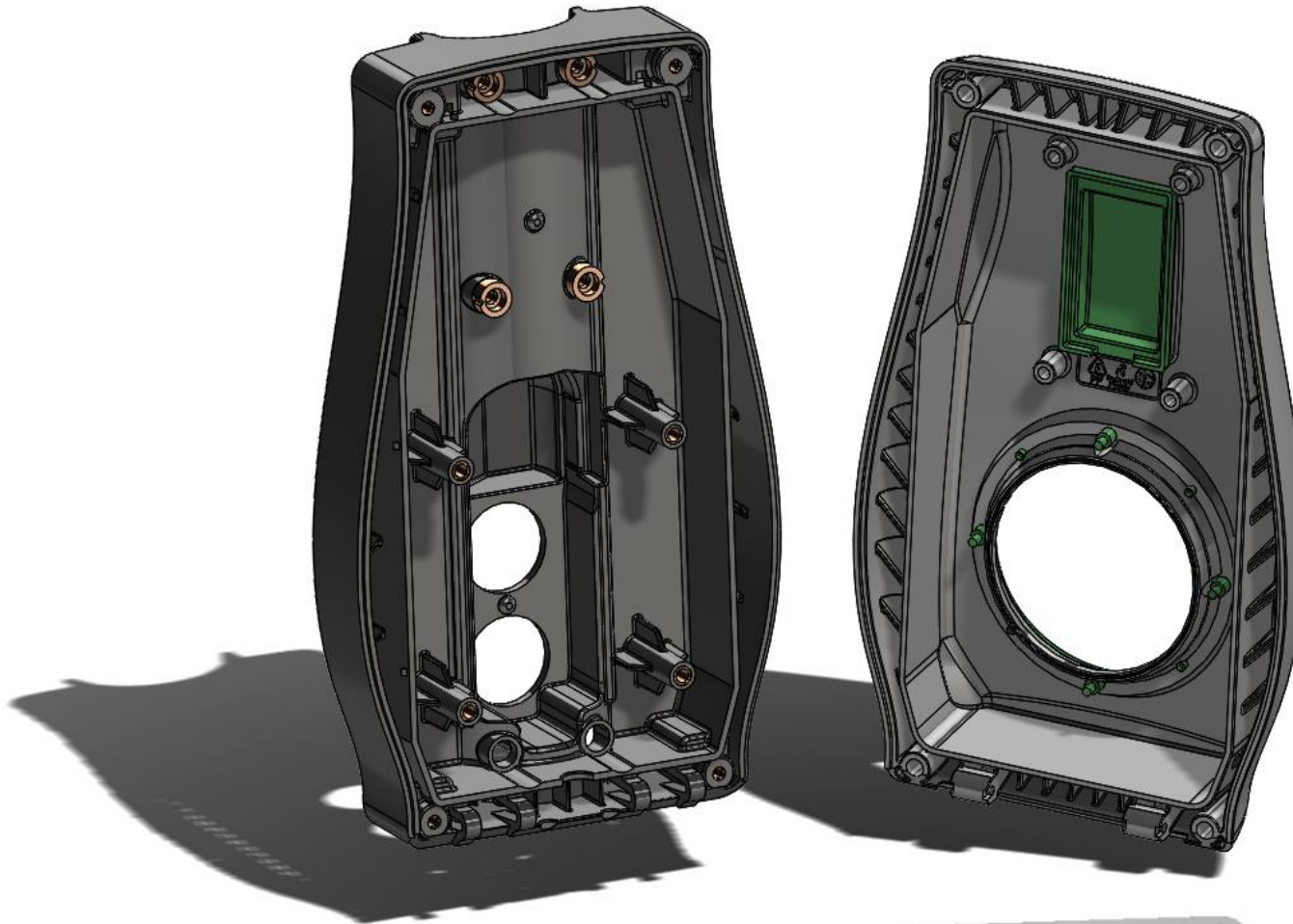
From the outset, the criteria agreed is to accommodate a specific type, style and size of 'Charge Socket' with integrated shutter & automated locking system for security on the device and a bespoke Wi-Fi / RFID Contactless Circuit Board. The device needed to be kept compact and yet still retain and shroud these vital & important components, but more importantly it had to have the facility of being load bearing & Mounted to a $\varnothing 76\text{mm}$ fabricated Steel tube (Powder Coated) post. Of which one from below was selected by CK.



Project Scope

Design Brief & Product Development:

The design developed from a single piece part into a hinged clamshell design. The general wall section is a generous 5mm to give a very rigid and durable assembly, further strengthened with a reinforced double skin wall to bolster the casing around the delicate electrical components, as well as offering a second layer of defence to the internal components should the outer skin become damaged.

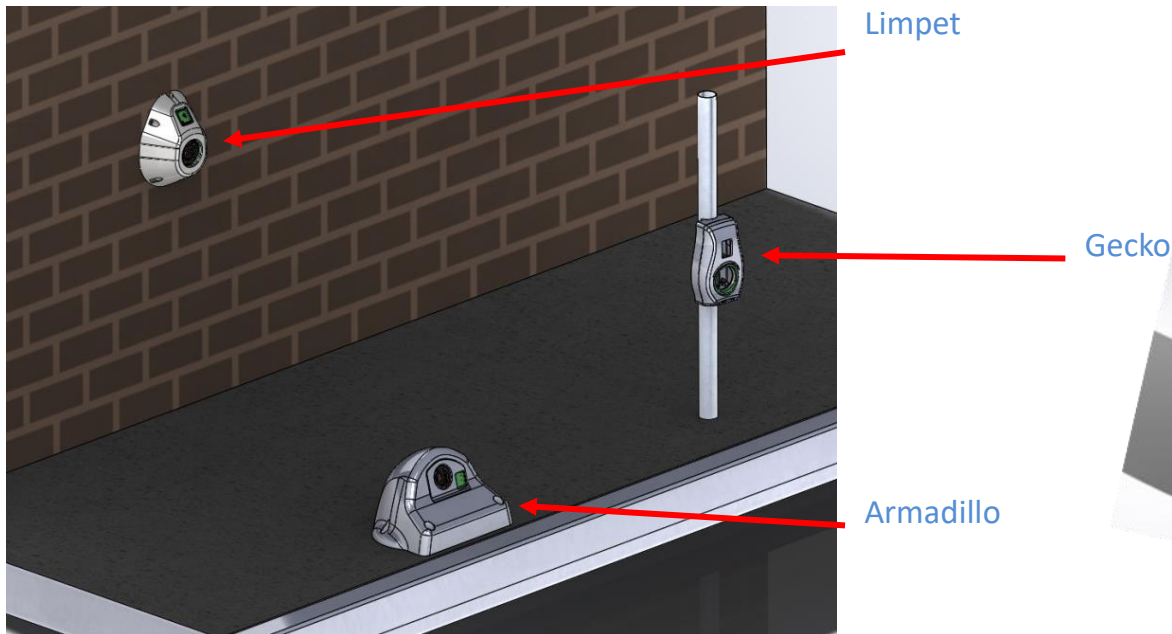


Project Scope

Design Brief & Product Development:

This was refined & developed into the Gecko that Rediweld is manufacturing today. From then on, each component item became a critical item to design to ensure that tooling and part cost is kept to a minimum & to budget.

Utilising adequate product draft, making sure that uniform wall section is maintained throughout the item to limit or reduce product distortion and to sustain a good fill /flow pattern during the moulding stage. Designing a component from concept is the perfect opportunity for considering design for manufacture and assembly keeping a component design in-line-of-draw will help to keep Tooling costs to budget and reducing the number of moving actions to a minimum within tooling helps to preserve and maintain the tool much longer without regular need for serviceable wear & tear. This was another opportunity for saving costs when being designed correctly, but does at times open up challenges within the design when considering that parts are to be assembled together too with ease & practicality. More importantly when considering installation & servicing on the streets.



Company Activities and Context of the Organisation

Company activities:

Rediweld Rubber and Plastics Limited provides under:

- a) "Rediweld Traffic" the manufacture and installation of Traffic Management and Site Safety Products for on and off highways;
- b) "Rediweld Technical Moulding" Plastic and Rubber" injection and Compression mouldings for Commercial, Aerospace, Defence, Medical and Fluids;

Context "Rediweld Traffic Products"

The company operates in the Traffic Management and Site Safety market, selling its products throughout the UK, as well as in Europe and the USA. The environment it operates in is for public highway and commercial off highway, which are both highly competitive. Rediweld has a wealth of knowledge in designing and manufacturing traffic products. These are made in Alton, Hampshire. Rediweld also offers an installation service with its own in house installation team. For customers who want to do the installation themselves, Methods Statements and Risk Assessments are provided. Rediweld employees are competent in carrying out both the manufacturing and installation work undertaken, in order to meet customer expectations. Rediweld traffic products are mostly surface mounted for ease of installation with no excavation required. These products are made from recycled rubber which is durable and long lasting. Rediweld complies with the regulations for this type of product and its installation.

Context "Rediweld Technical Moulding"

Rediweld is a specialist manufacturer of Thermoplastic, Thermoset/Composite and Rubber mouldings to technology sectors and has been involved in supplying the aerospace, defence, electronics, medical and commercial industries for many years. The services offered go from design support and new products introduction, to injection and compression moulding (Thermoplastic, Thermoset/Composite and Rubber), as well as machining, finishing, assembly and testing. Rediweld processes engineering grade materials such as Nylon, Polycarbonates, PBT's, ABS, ABSPC as well as High Performance grades such as PEEK, PES, PEI & PPS along with specialised additives to enhance all of these materials.

Rediweld operates within a highly competitive environment with a focus on Customer expectations looking to added value business opportunities in providing finished product.

The Context of the Organisation is the Input for our Business Planning process. The process is detailed in our Business Planning Procedure covering external and internal issues.

Interested Parties

Our quality management system is required to consistently meet customer and applicable regulatory requirements as well as those from employees and external providers.

The requirements of the interesting parties have been identified and they are also reflected in our Business Planning.

a) Interested Parties Technical Moulding

| Item No. | Interested Parties | Requirements |
|----------|--|---|
| 1 | Customer Direct receipt of products | On time delivery |
| | | Right first time |
| | | Comply with requirements incl. Quality |
| | | Competitive Pricing |
| 2 | Employees Responsible for realization of products | Provide training |
| | | Job stability |
| | | Create safe working environment |
| 3 | External Providers | Capabilities - on time & right first time |
| | | Stable pricing |
| | | Technical Support |
| 4 | Regulators Dictate controlling regulators that impact on the management system and our products | Compliance with laws |
| | | Employees are at least paid the minimum standard wage |
| | | Employees working hours meet legal requirements |
| 5 | Shareholders Investment | Return of Investment |
| | | Growth & continuation of the business |

b) Interested Parties Traffic

| Item No. | Interested Parties | Requirements |
|----------|--|---|
| 1 | Customer Direct receipt of products | On time delivery |
| | | Right first time |
| | | Installation including H&S requirements |
| | | Competitive Pricing |
| 2 | Employees Responsible for realization of products | Provide training |
| | | Job stability |
| | | Create safe working environment |
| 3 | Providers Provide supporting services or raw material | Capabilities - on time & right first time |
| | | Stable Pricing |
| | | Technical Support |
| 4 | Regulators Dictate controlling regulators that impact on the management system and our products | Compliance with laws |
| | | Employees are at least paid the minimum standard wage |
| | | Employees working hours meet legal requirements |
| 5 | Shareholders Investment | Return of Investment |
| | | Growth & continuation of the business |

QMS conformance and scope

1) Scope
The scope of the Quality Management System is set according to the customer requirements and expectations.

1.1 Scope "Rediweld Traffic Products"
Design, manufacture and installation of traffic management and site safety products.

According to all requirements of ISO 9001:2015.

1.2 Scope "Rediweld Technical Moulding"
Moulding, machining and assembly of rubber and plastic products, to customer specification.

Design and Development clause 8.3 is not applicable as we work to customer drawings and specifications. No products or external services are required to be designed and developed per clause 8.3 in order to confirm to customer or regulation requirements. No additional services are provided beyond products being designed.

Quality Objectives

The Management Team determine and agree realistic Quality Objectives in support of the Company's Quality Policy Statement.

Management Reviews are used to review the performance against the agreed objectives to measure the effectiveness of the system and for continual improvement.

The company's quality objectives are listed under Annex H of this document.

Risk and Opportunities

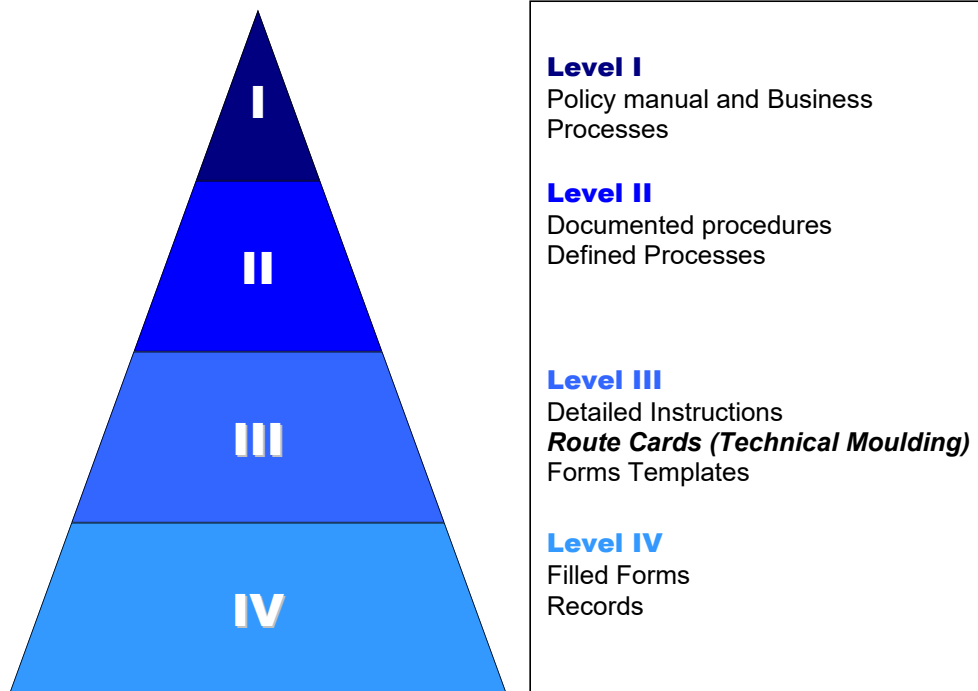
Our Business Risk and Opportunities have been determined. To identify business risks & opportunities the following tools have been applied:

Business Planning Process

SWOT analysis (Strengths, Weakness, Opportunities, Threads)

5 M analysis of the business (Machines, Materials, Manpower, Method, Measurement)

Structure of quality management system



The organization's quality system supports its policy and objectives and is focused on delivering products and services that enhance customer satisfaction through profitable production.

Organizations Identified Processes

The organization's identified processes are operated under controlled conditions and are monitored, measured and analyzed to ensure ongoing effectiveness and efficiency via the Business Planning Process (LV1-Process Title 7: Business Planning).

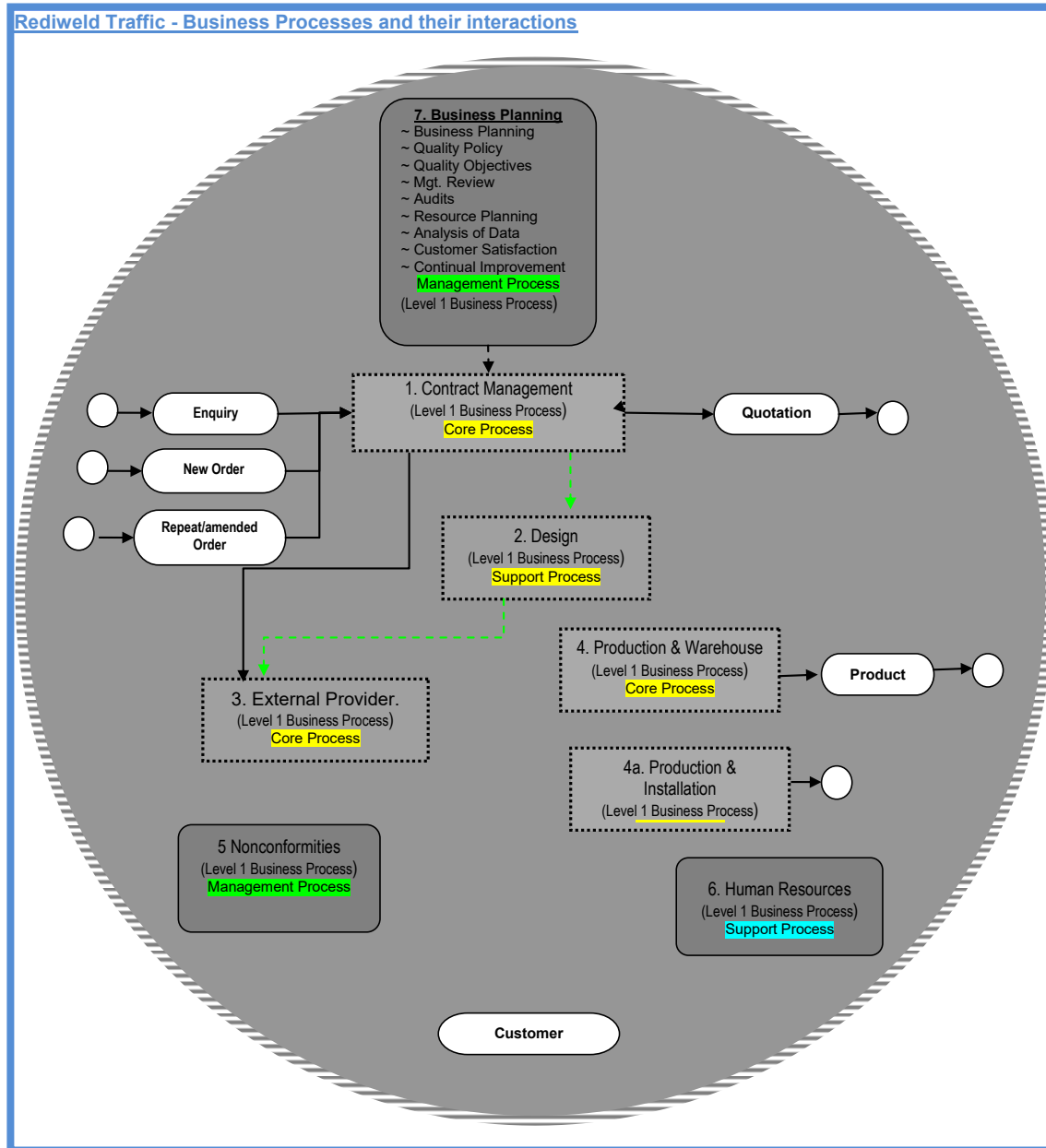
The next pages show the interaction between the processes of the QMS followed by the documented procedures for:

[Rediweld Traffic – Business Processes](#)

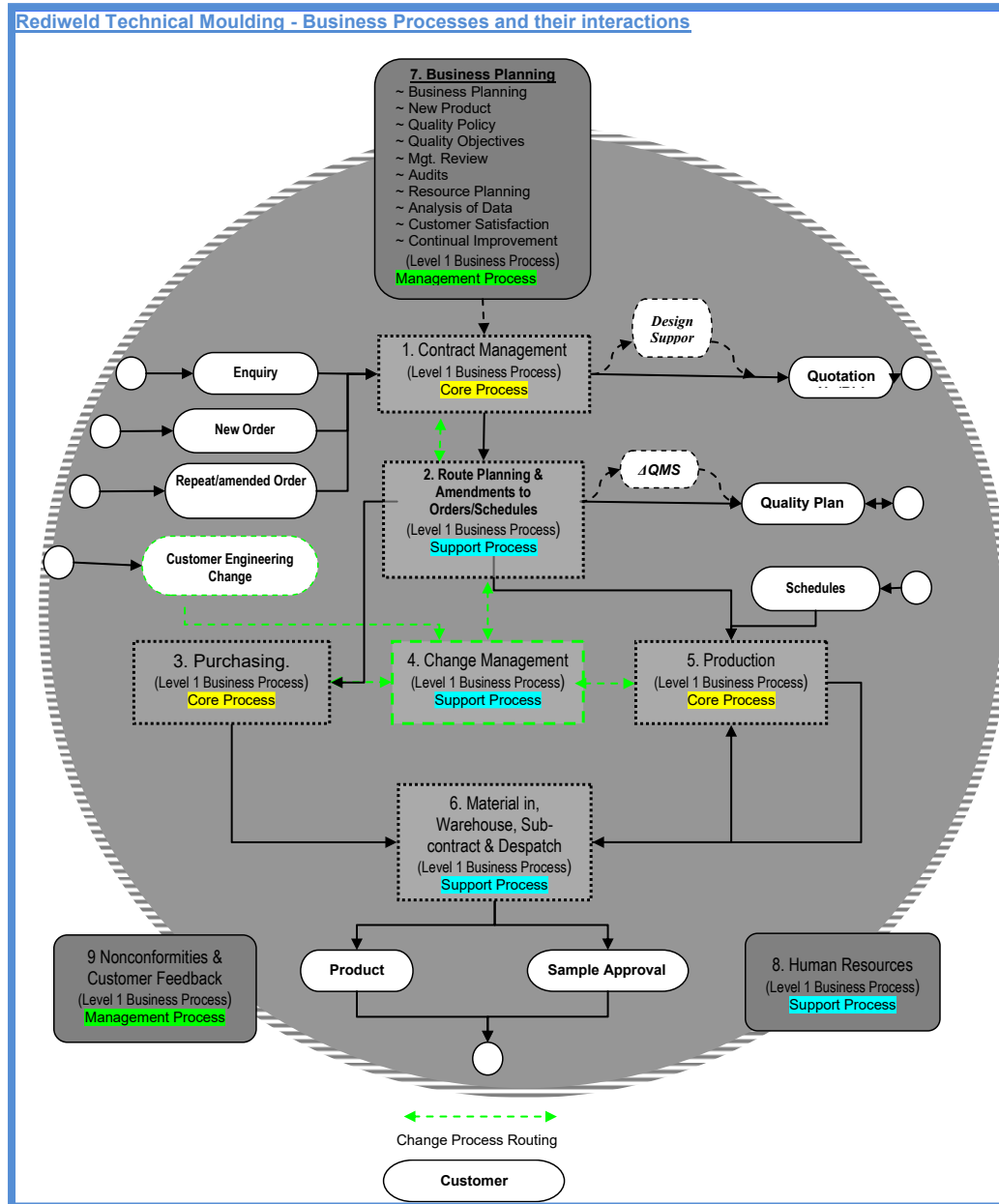
[Rediweld Technical Moulding – Business Processes](#)

The core processes are different due to the scope, nature of products, processes used and customer requirements.

Quality Document - Policy



Quality Document - Policy

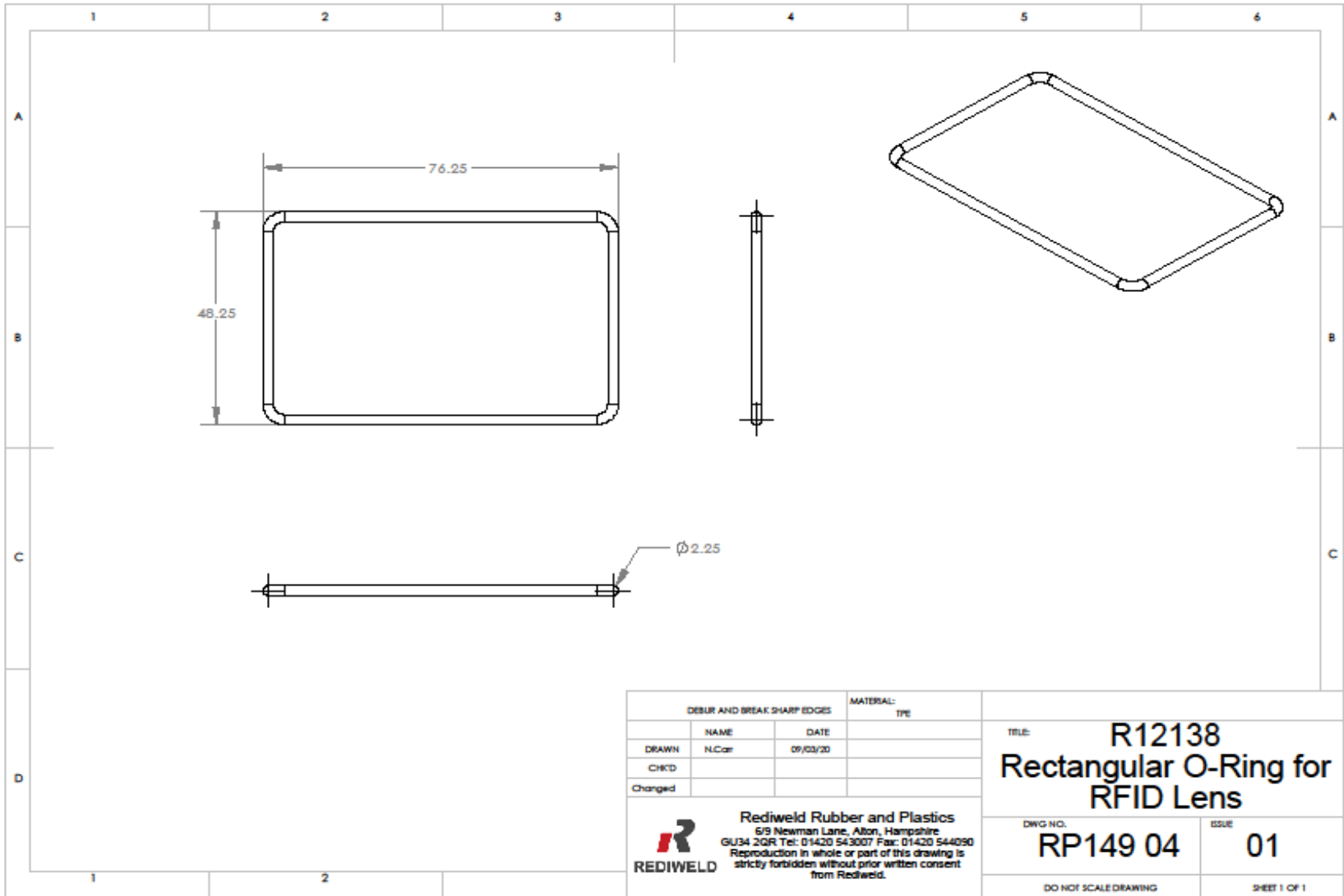


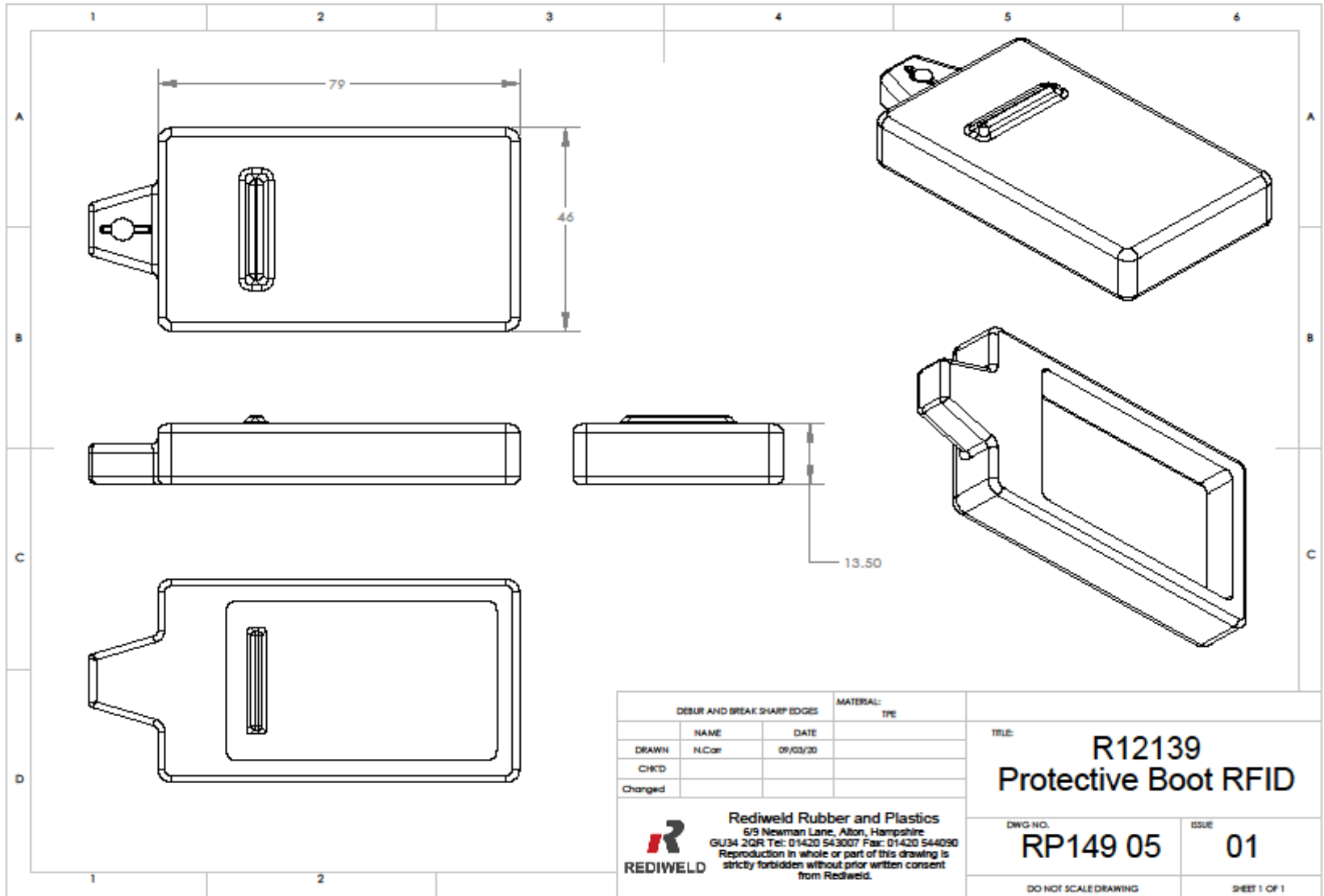
Quality Document - Policy

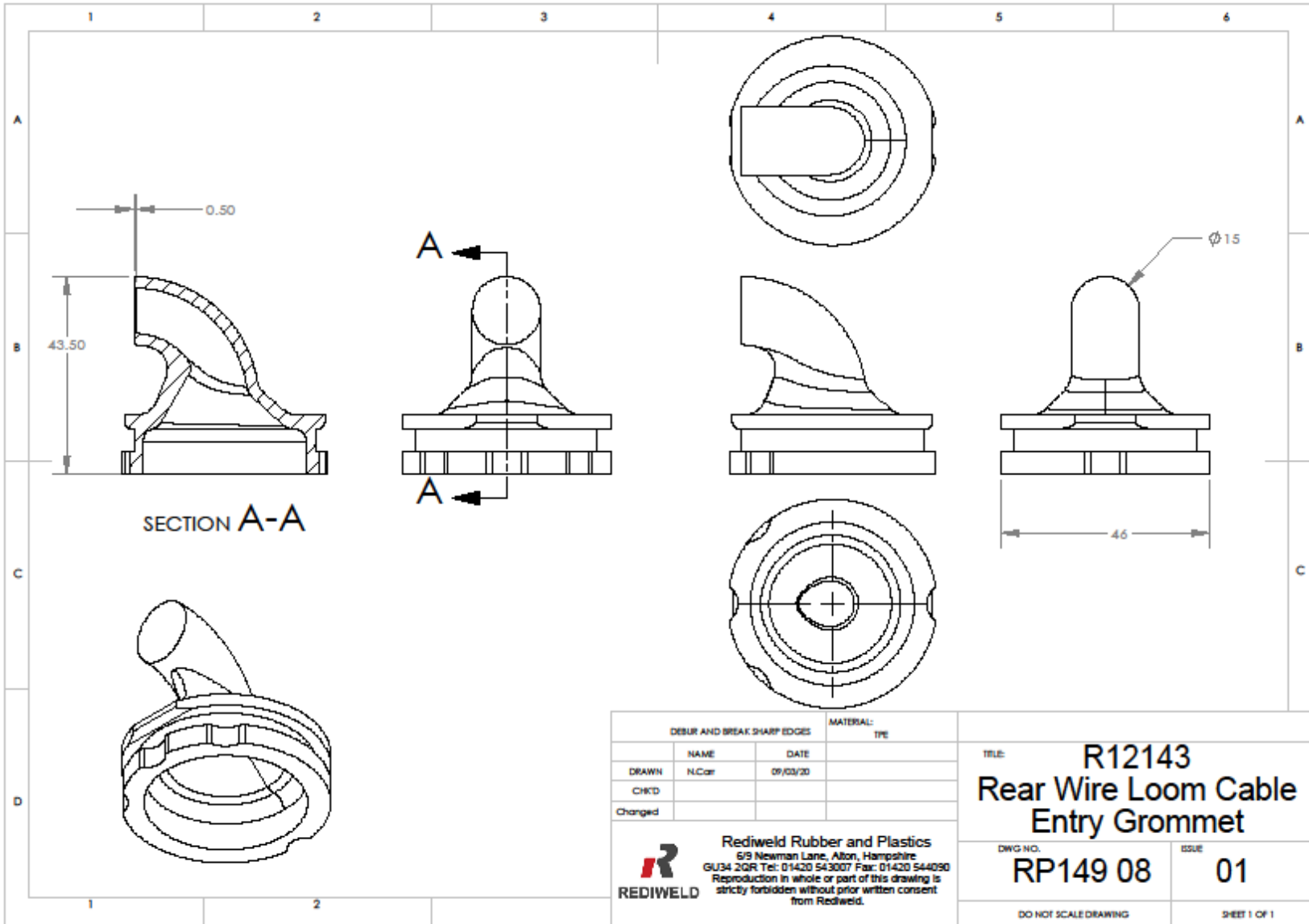
| Document Ref No. | Issue | <i>Business Processes</i> |
|------------------|-------|---|
| T1 | 1 | Contract Management Traffic & Technical Moulding Division |
| M&T2 | 4 | Design and Design Support |
| T3 | 2 | External Provider Traffic |
| T4 | 2 | Production Traffic |
| M&T7 | 6 | Business Planning |
| M&T6 | 5 | Human Resources |
| M&T5 | 6 | Non-conformities and Customer Feedback |

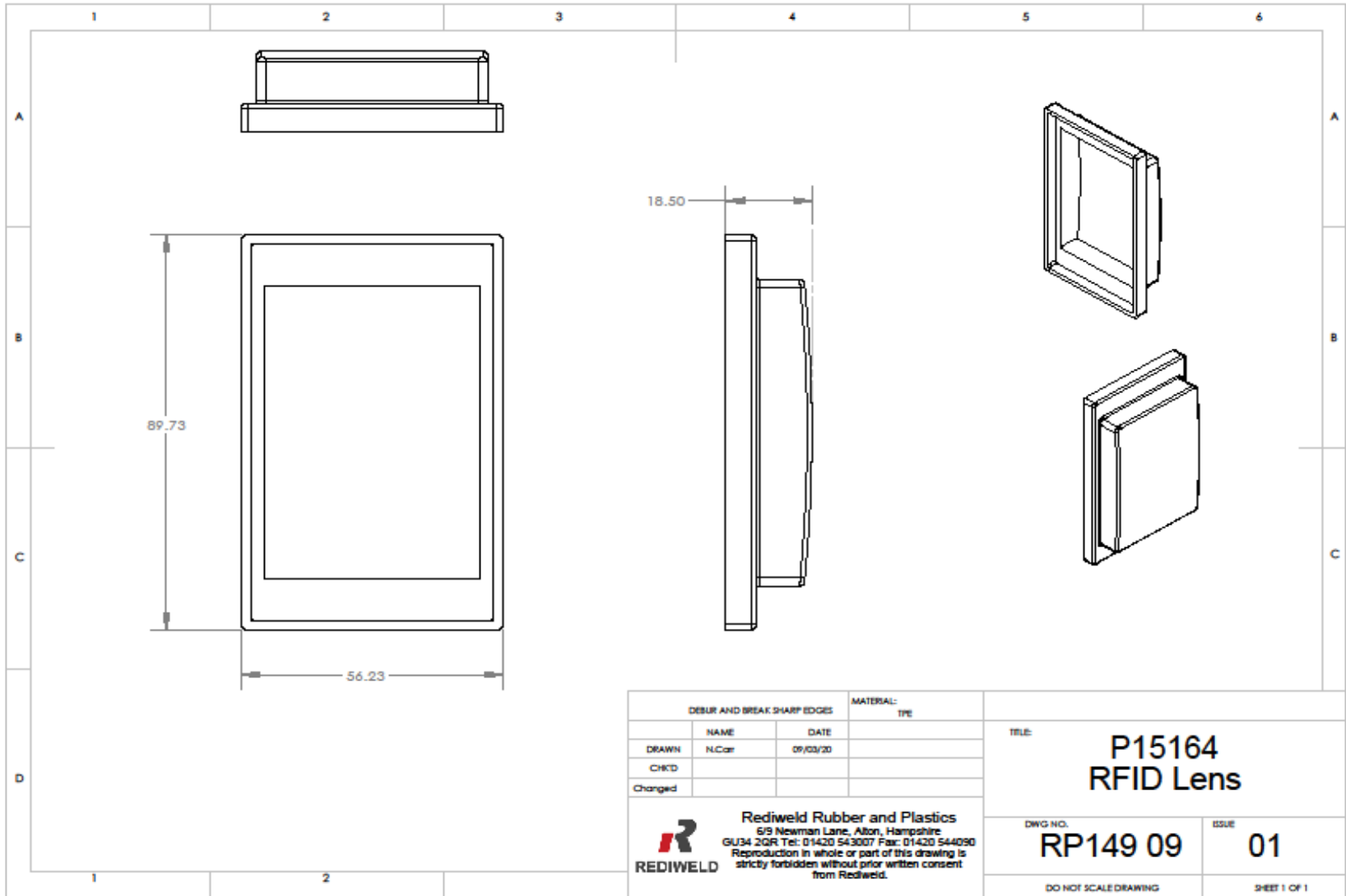
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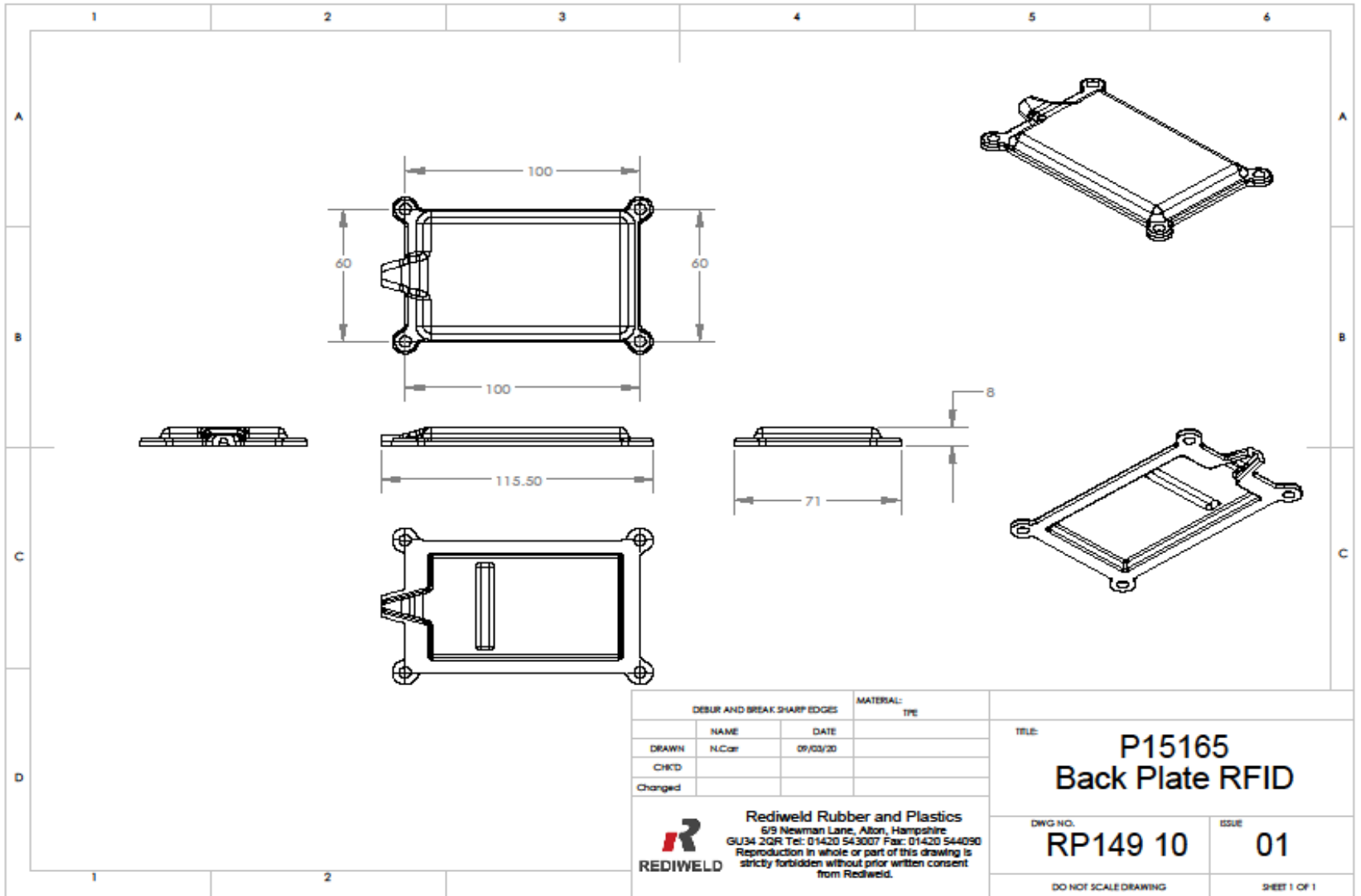
| Document Ref No. | Issue | Documented procedure | Standard Cross Reference |
|------------------|-------|--|--------------------------|
| 4.01 | 2 | Business Systems Documents | 7.5.2 & 7.5.3 |
| 4.02 | 2 | External Documents & Software Control | 7.5.2 & 7.5.3 |
| 4.03 | 3 | Control of Records | 7.5.2 & 7.5.3 |
| 4.04 | 2 | Configuration Management | 8.1.2 |
| 4.05 | 2 | Planning & Process Effectiveness (Risk Management) | 8.1 |
| 4.06 | 3 | Engineering Changes | 8.5.1 |
| 4.07 | 1 | Development of Strategic Business planning | 4.1 |
| 7.01 | 1 | Control of Production Equipment, Tools and CNC Programming | 8.5.1.1 |
| 7.02 | 1 | Customer Supplied Product | 8.5.3 |
| 7.03 | 3 | Calibration | 7.1.5 |
| 8.01 | 7 | Internal Audits | 9.2 |
| 8.02a | 8 | Internal Non-Conformance Item Control | 8.7 |
| 8.02b | 5 | Non-Conformance Analysis & Corrective Action | 10.2 |
| 8.04 | 6 | First Article Inspection | 8.5.1.3 |
| 8.05 | 2 | Product Rework | 8.7 |
| 8.06 | 1 | Customer Free Issue Material | 8.5.3 |
| 8.10 | 3 | Competence, Awareness and Training | 7.2 & 7.3 |
| 8.11 | 2 | Tooling Assessment & Maintenance. | 8.1 & 8.5.1 |
| 8.12 | 2 | Foreign Object Debris (FOD) | 8.5.1 |
| 8.13 | 1 | Toolroom Equipment Maintenance | 8.1 & 8.5.1 |
| 8.14 | 2 | Counterfeit Material | 8.1.4 |
| 8-15 | N/A | Draft – not released | |
| 8-16 | 1 | Key Characteristics Process Overview. | |

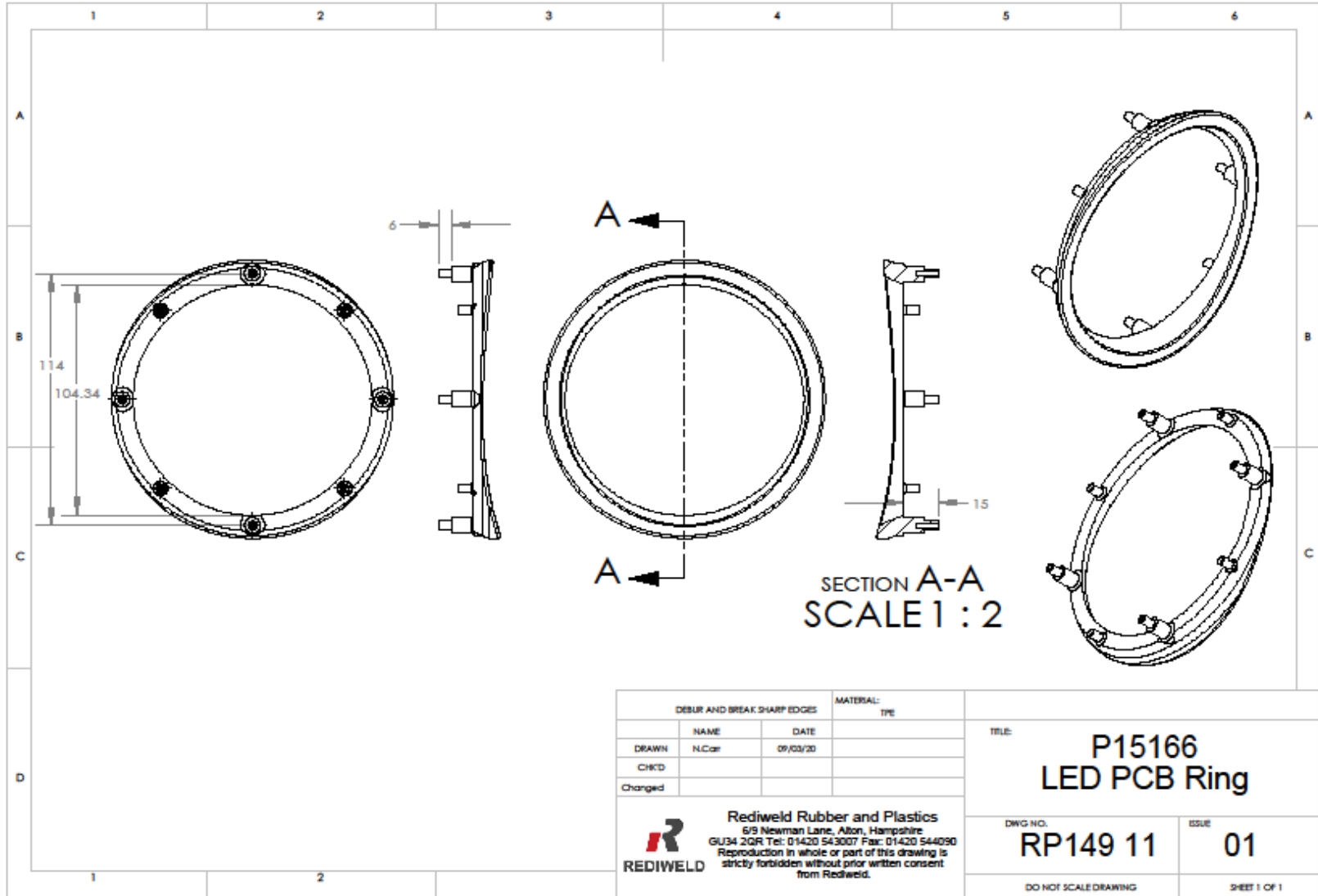


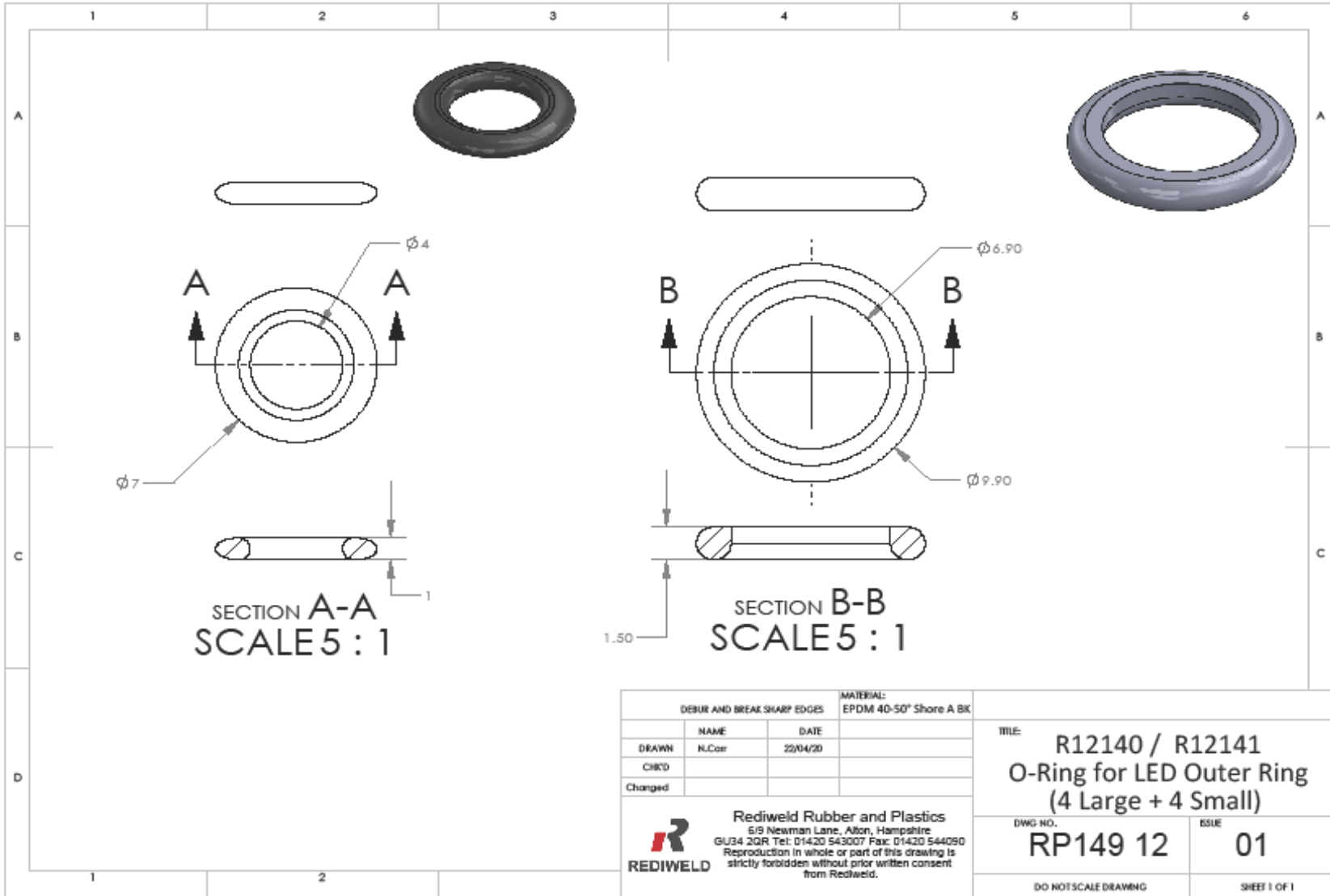


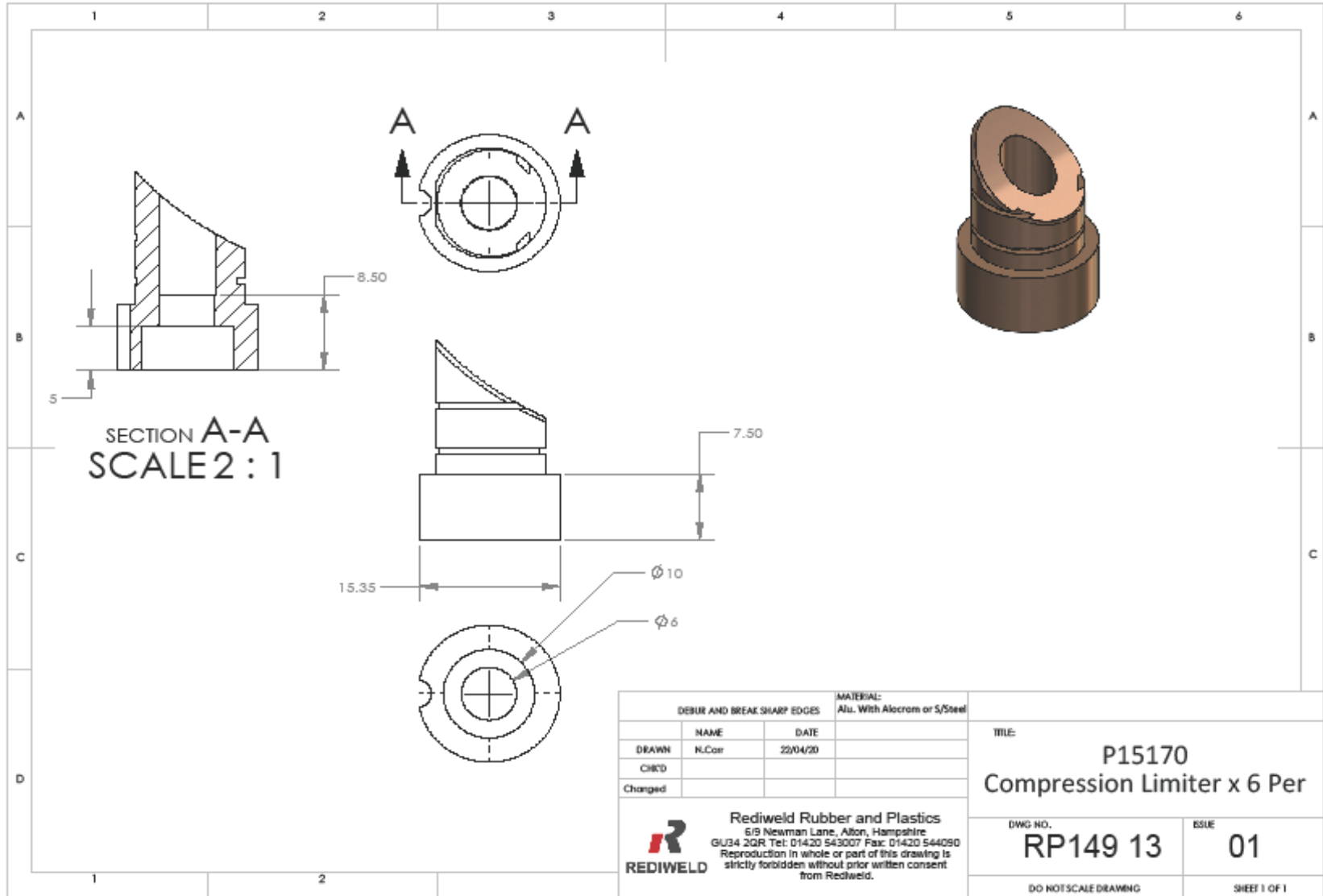


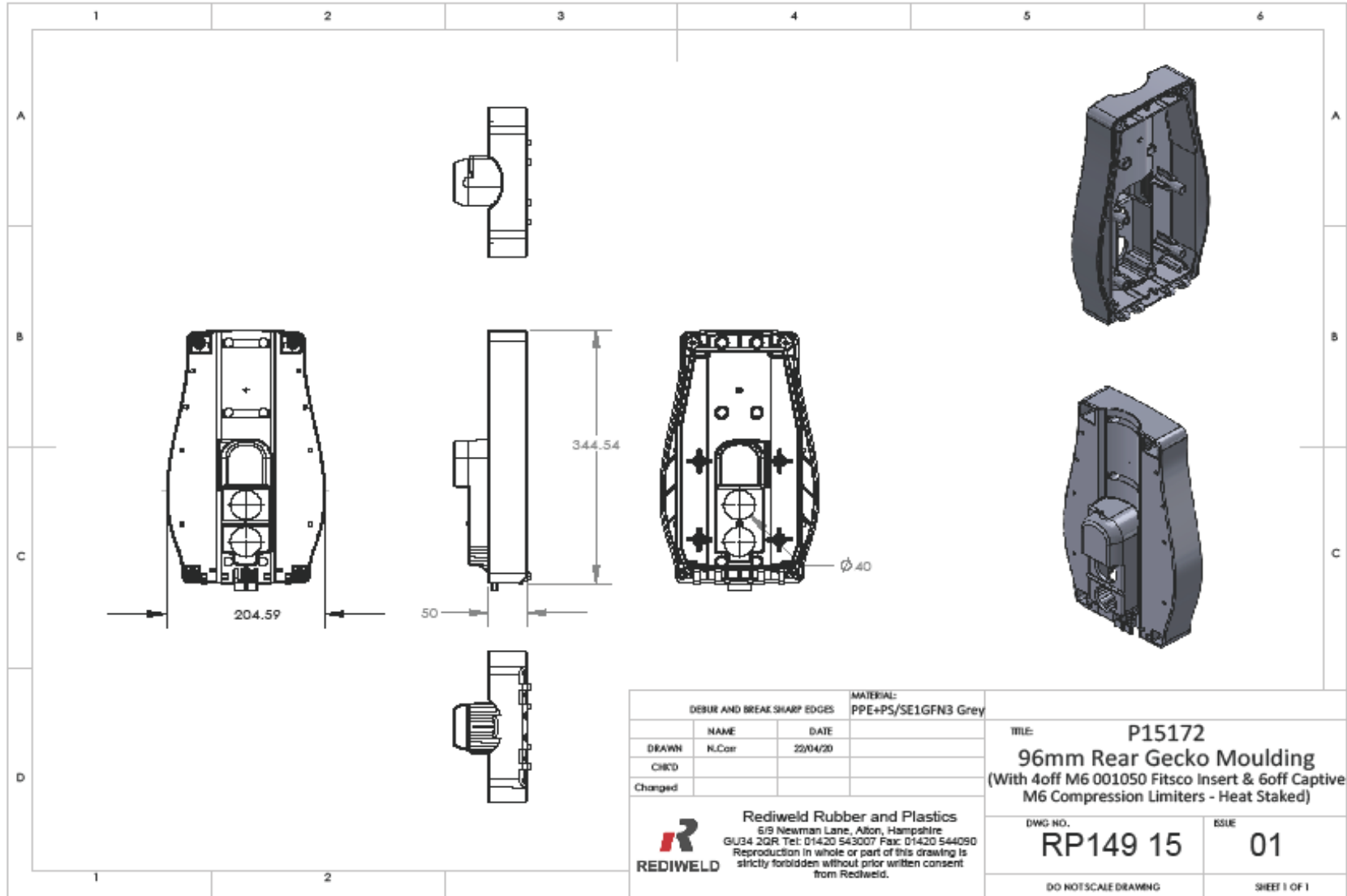


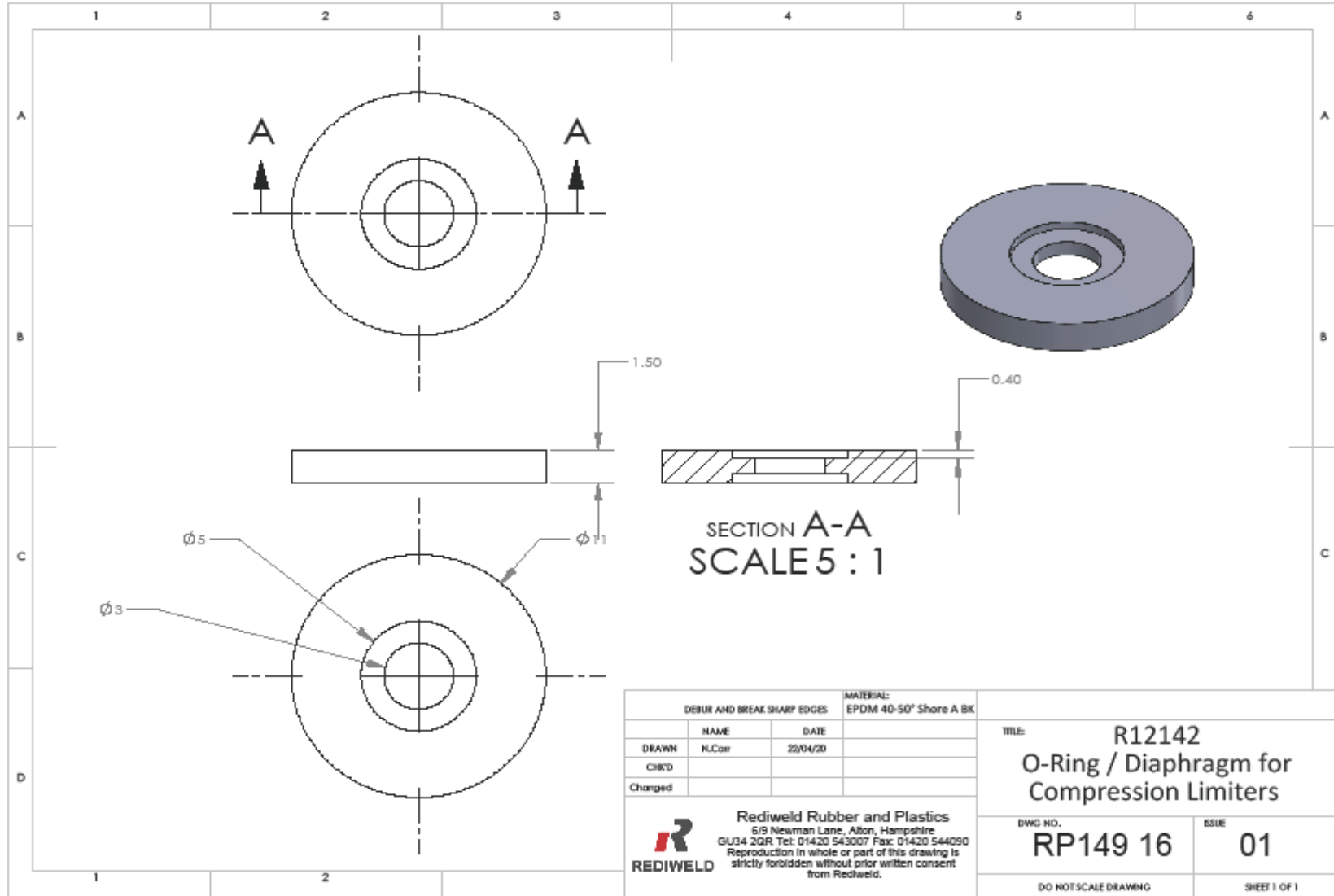


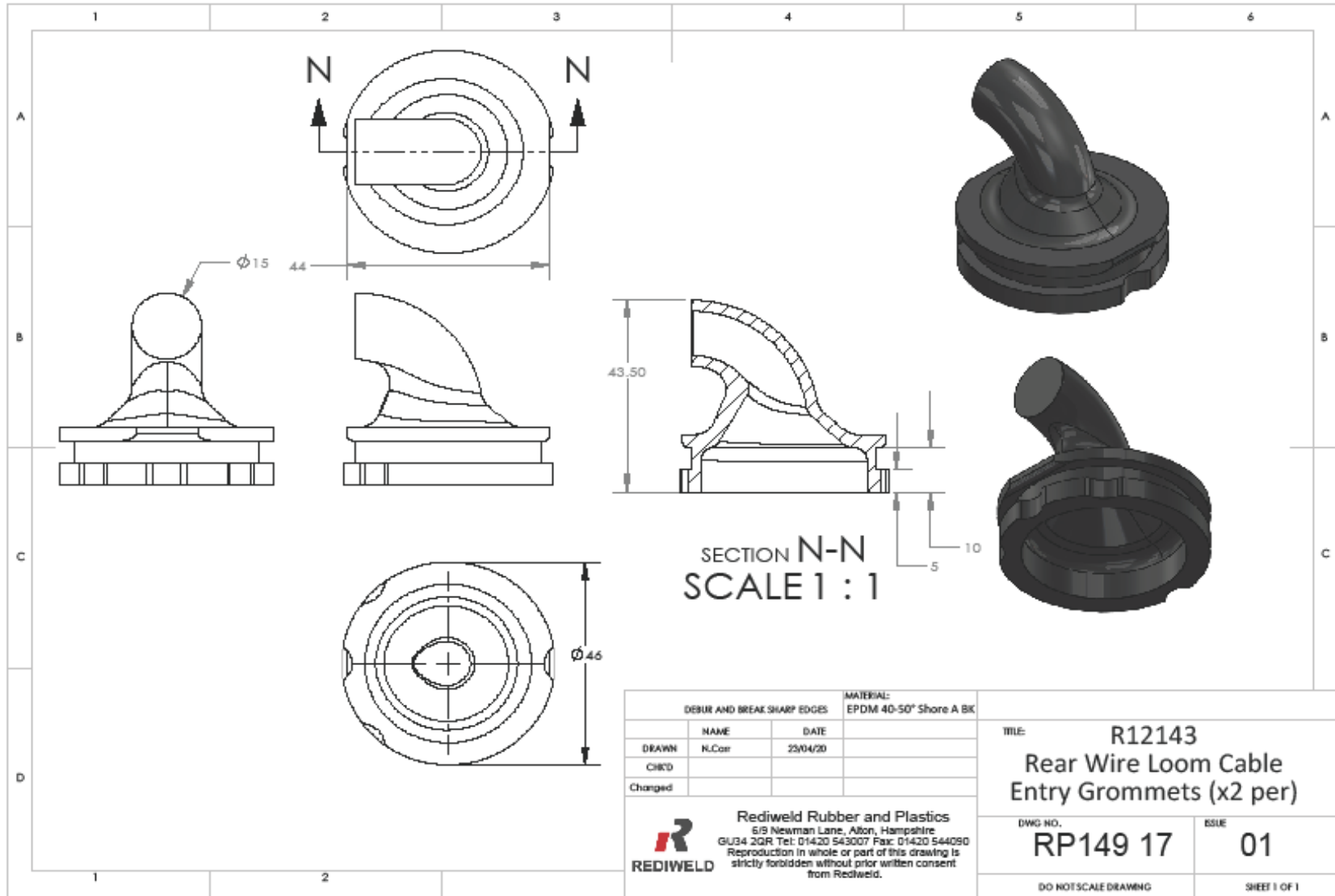


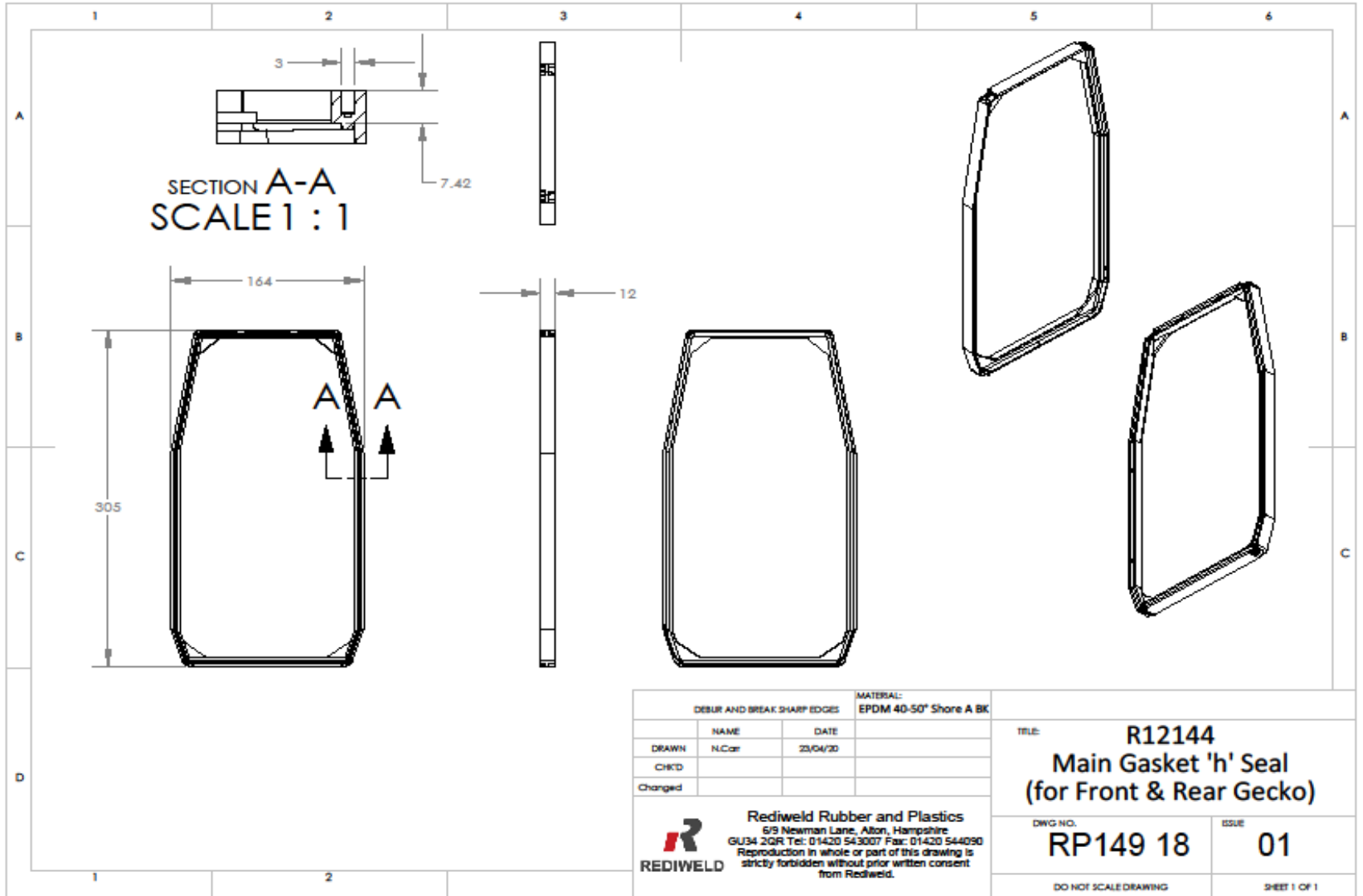


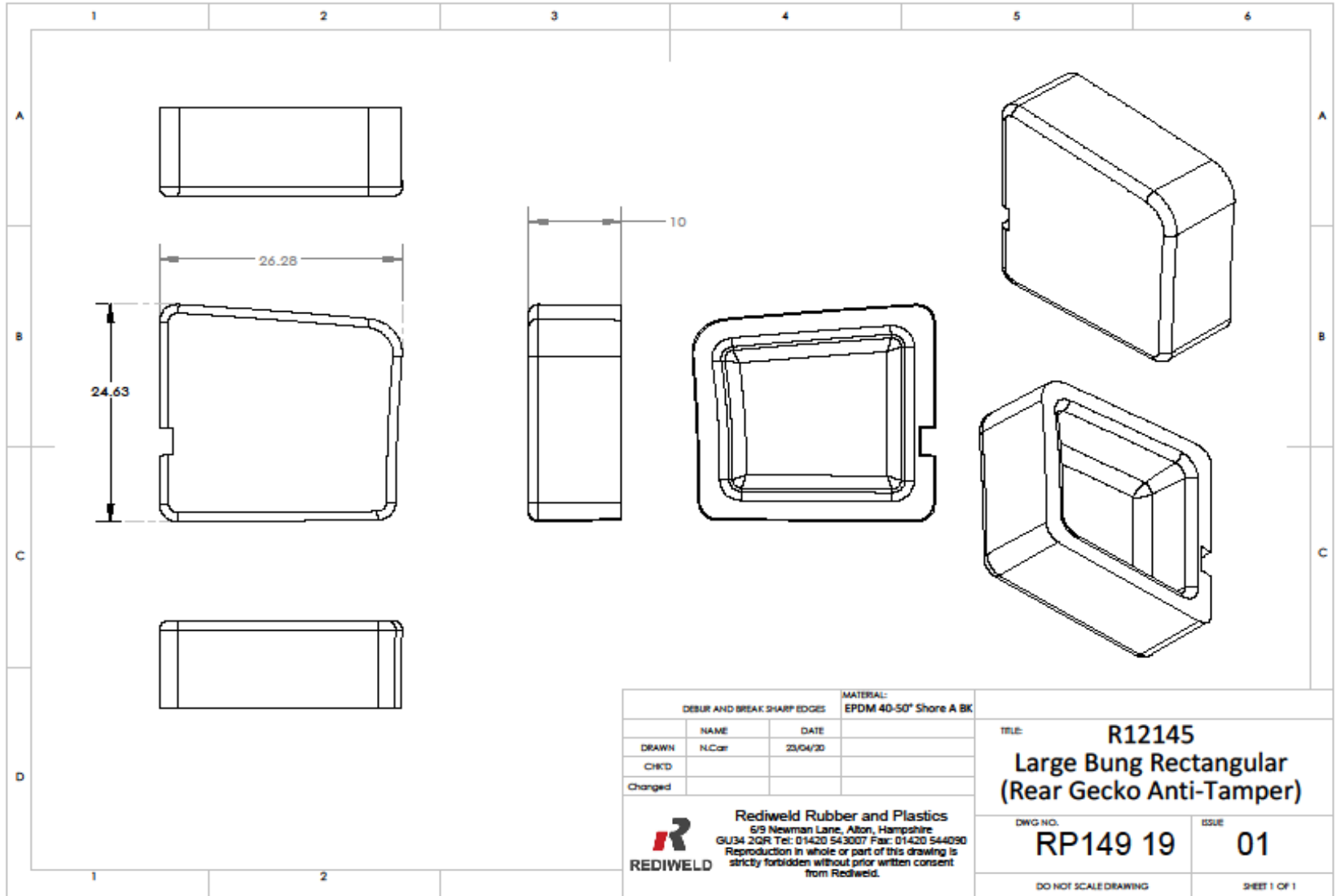


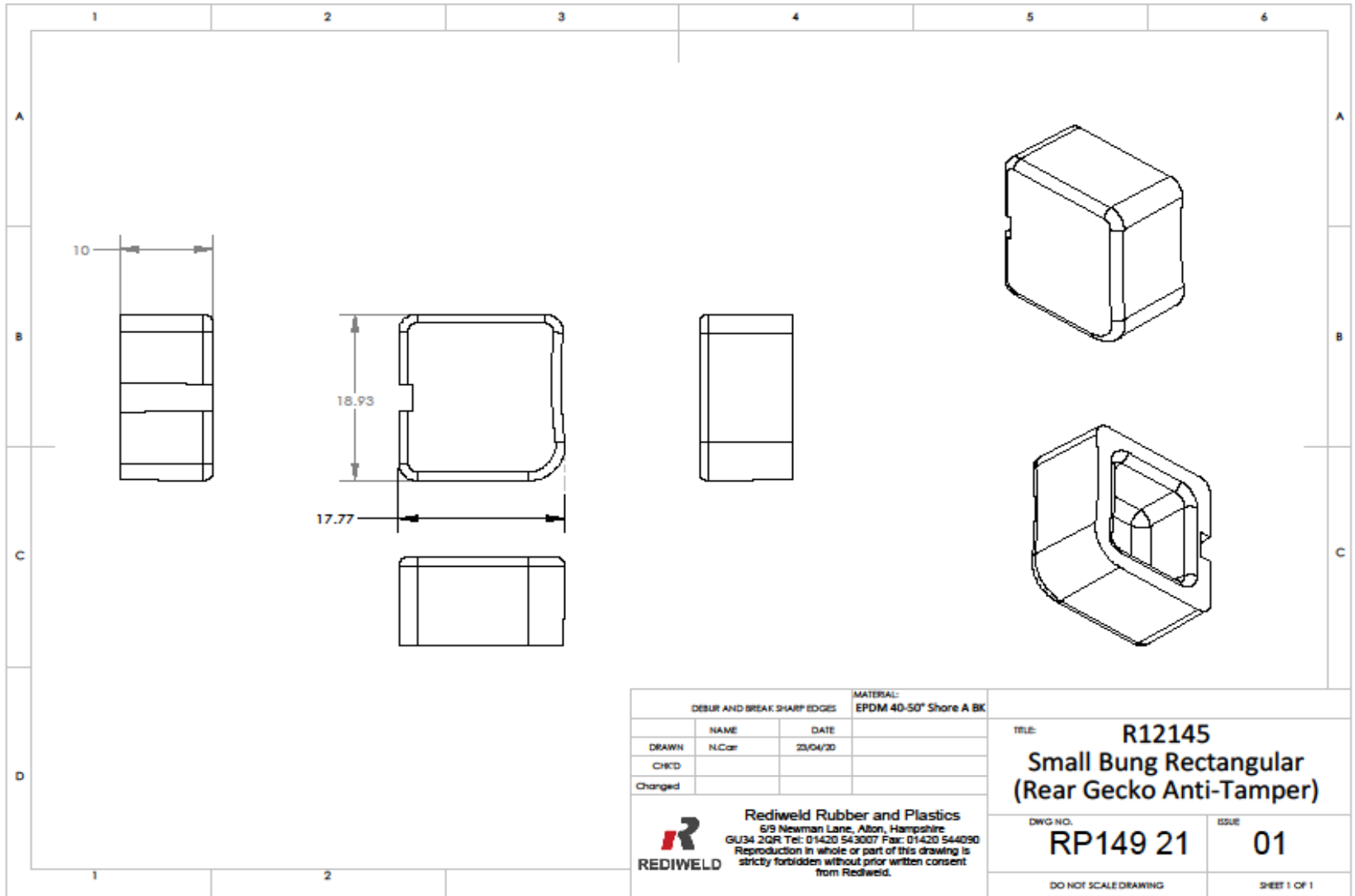





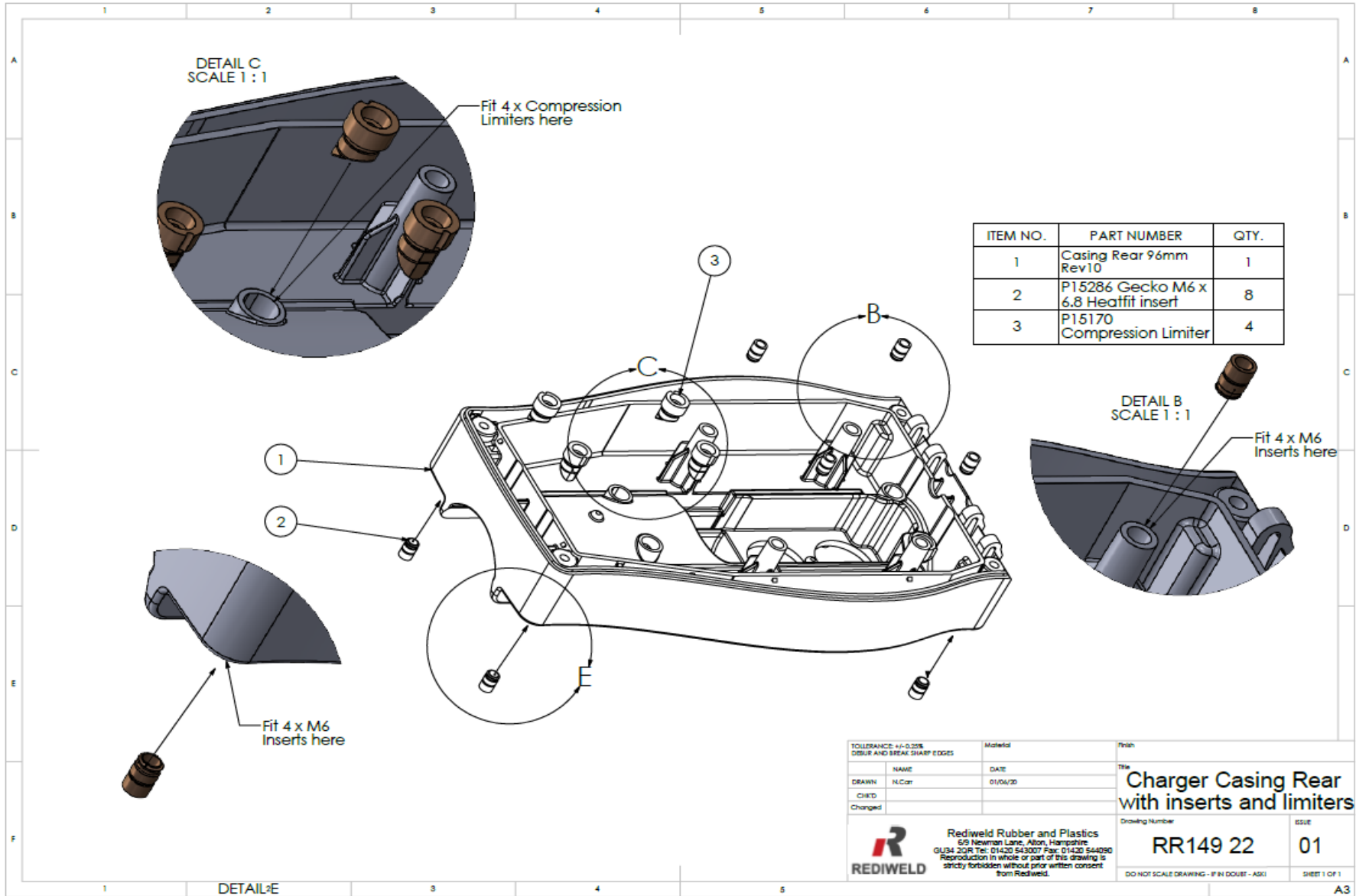


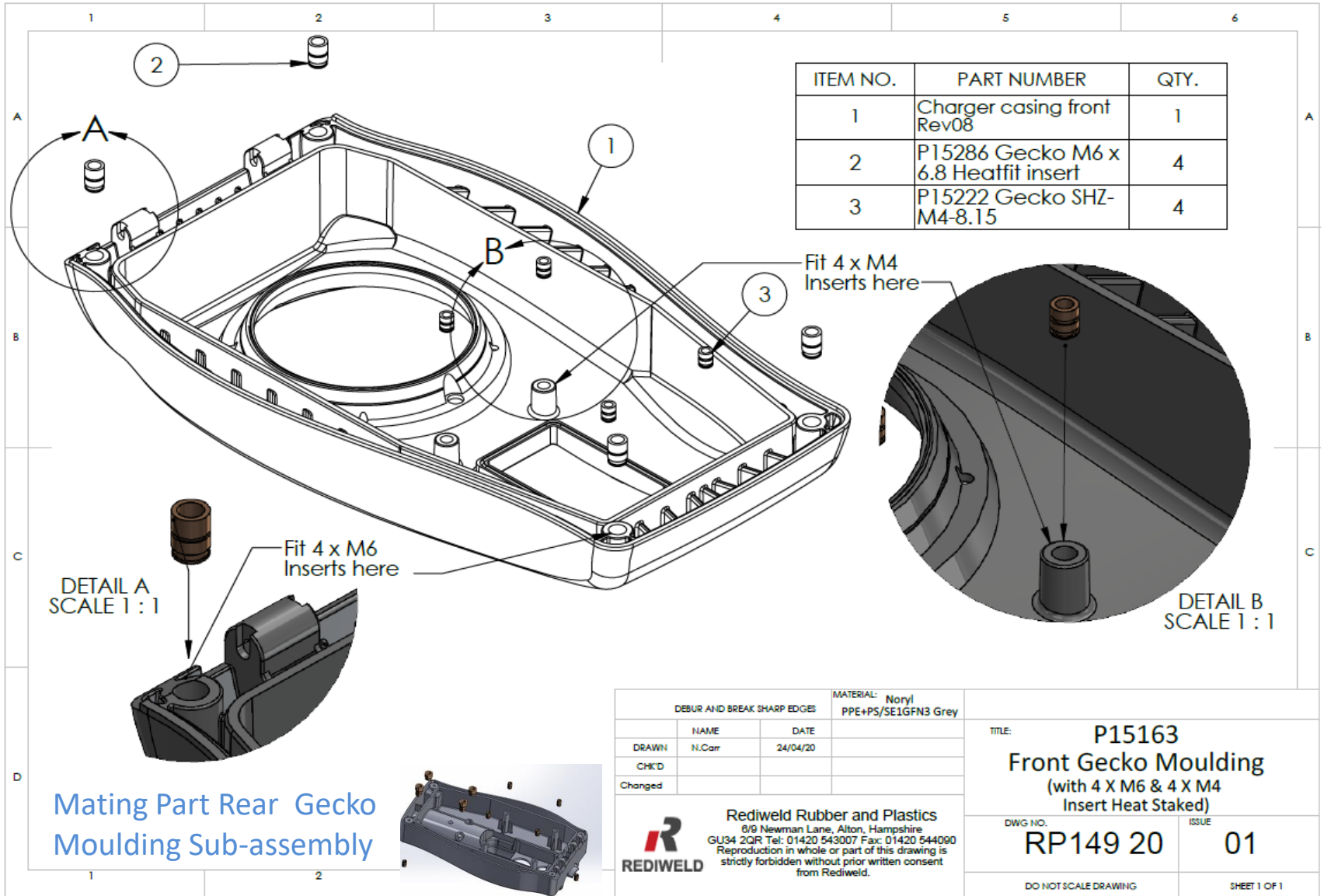


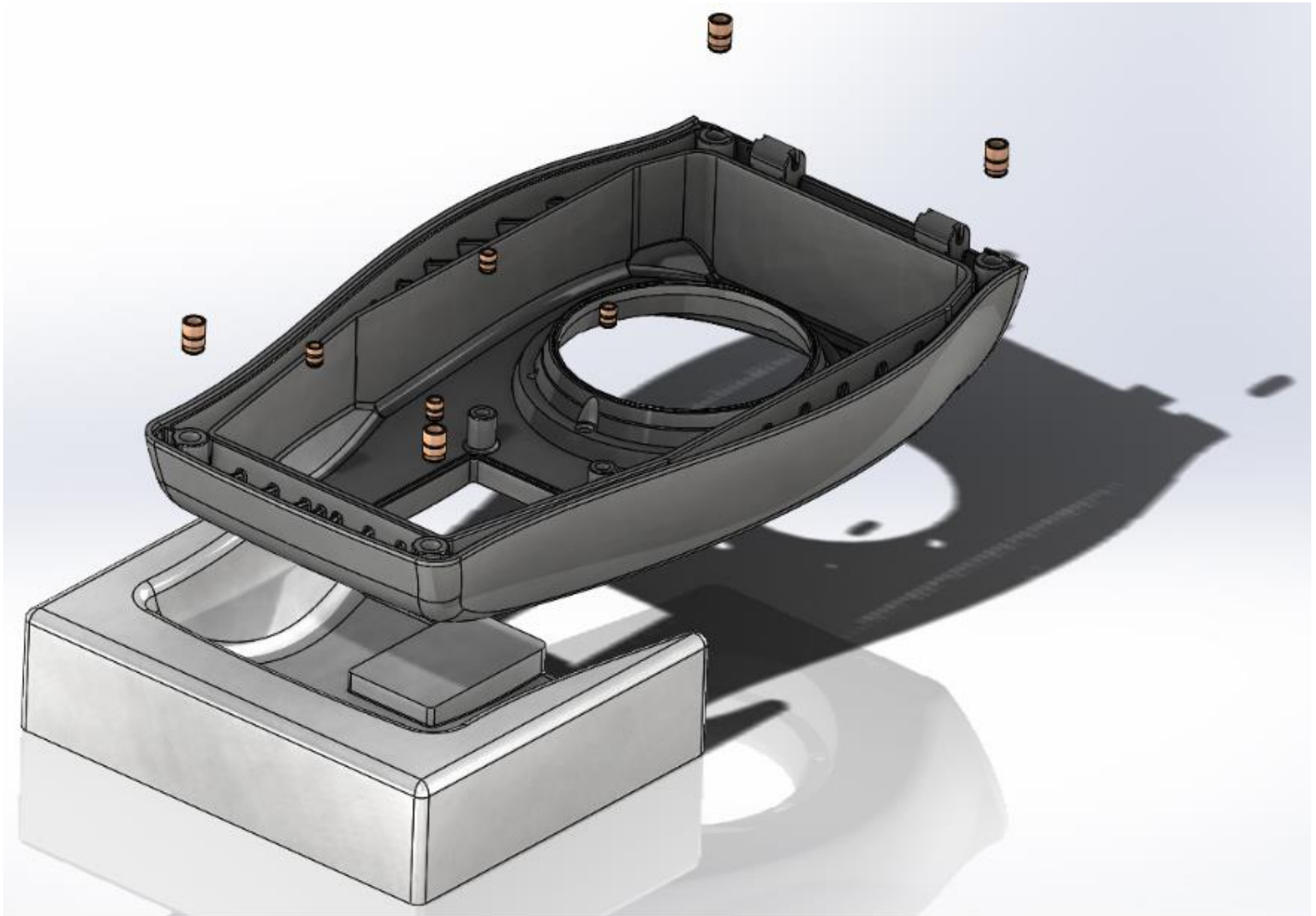




| | | | | | |
|---|----------|-------------------------------------|--|---|--|
| DEBUR AND BREAK SHARP EDGES | | MATERIAL: EPDM 40-50° Shore A BK | | TITLE: R12145 Small Bung Rectangular (Rear Gecko Anti-Tamper) | |
| NAME | DATE | | | DWG NO. RP149 21 | |
| DRAWN N.Car | 23/04/20 | | | ISSUE 01 | |
| CHKD | | | | DO NOT SCALE DRAWING | |
| Changed | | | | SHEET 1 OF 1 | |
|  Rediweld Rubber and Plastics 6/9 Newman Lane, Alton, Hampshire GU34 2QR Tel: 01429 543007 Fax: 01429 544090 Reproduction in whole or part of this drawing is strictly forbidden without prior written consent from Rediweld. | | | | | |








Gecko BOM Details (P15185)

Final Assembly - P15185 (Completed)

| <u>Top- Level Part</u> | <u>Part Description</u> | <u>Parent Part</u> | <u>Part Description</u> | <u>Child Part</u> | <u>Type</u> | <u>Part Description</u> | <u>Ratio to Parent</u> |
|--------------------------------|-------------------------|------------------------|-------------------------|-------------------|-------------|---|--------------------------------|
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15163 | P | Gecko Front Moulding | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15164 | P | Gecko RFID Lens (1.2g/cm ³) | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15165 | P | Gecko Backplate RFID (1.2g/cm ³) | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15166 | R | Gecko LED PCB Ring | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15167 | P | Gecko Circular LED Outer Ring - Light Pipe | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15168 | R | Gecko Star Washers / Clip for LED Outer Ring | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15169 | R | Gecko Spiral Pin For Hinge - Dia 4-5mm 34 mm L4 | 2 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15170 | R | Gecko Compression Limiter | 6 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15171 | P | Gecko 76mm Rear Moulding | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15173 | R | Gecko 1.5 mtr 6mm HO7 Rubber 3 Core, 32A Cable | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15174 | R | Gecko M6 Captive Screw | 10 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15175 | R | Gecko Spring LC 022D 08 S316 | 10 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15176 | R | Gecko M4 x 12mm Full Thread Screw for RFID | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15177 | R | Gecko M6 x 20mm Screw for Socket | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15178 | R | Gecko Mennekes Plug Charge socket 31038 | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15179 | R | Gecko RFID Reader | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15222 | R | Gecko SHZ-M4-8.15 | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15224 | R | Gecko M6 x 8mm Through Hole Inserts | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15238 | R | Gecko M6 x 25mm Torx SHCA-M6-25-A2 | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15239 | R | Gecko M6 x 25mm Cap Head SSC-M6-25-A2 | 6 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15263 | P | Gecko Rectgl O-Ring RFID Lens (R12138) | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15265 | R | Gecko O-Ring for LED Outer Ring Large (R12140) | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15266 | R | Gecko O-Ring for LED Outer Ring Small (R12141) | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15267 | R | Gecko O-Ring / Diaphragm for Comp Lim (R12142) | 6 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15268 | R | Gecko Rear Wire Loom Cable Grommets (R12143) | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15269 | R | Gecko Main Gasket Seal Front & Rear (R12144) | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15270 | R | Gecko Bung(Rear Anti-Tamp) Large (R12145) | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15271 | R | Gecko Bung(Rear Anti-Tamp) Small (R12164) | 4 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15274 | P | Gecko Harness Assy | 1 |
| P15275 | Gecko Assembly | P15275 | Gecko Assembly | P15291 | R | Gecko M6 x 12.7 Heatfit insert | 12 |
| P15275 | Gecko Assembly | P15274 | Gecko Harness Assy | P15264 | P | Gecko Protective Boot RFID (R12139) | 1 |
| P15275 | Gecko Assembly | P15274 | Gecko Harness Assy | P15268 | P | Gecko Rear Wire Loom Cable Grommets (R12143) | 1 |

| |
|-------------|
| KEY: |
| Manufacture |
| Purchase |

| | | | | | |
|---------------------------|-------------------|--------------------|----------------|--------------------|--|
| Process Description:- | Mains power cable | Customer:- | Connected Kerb | Base Part Number:- | |
| Relevant Specifications:- | | Drawing Number:- | | New Part Number:- | |
| Specification Issue:- | | Drawing Revision:- | | Machine Number:- | |


| Op No. | OPERATOR INSTRUCTIONS | PROCESS IMAGES |
|--------|--|--|
| 10 | Get power cable P15173 and feed P15268 cable grommet over finished end as shown ensuring grommet is put on in correct alignment. |  |
| 20 | | |
| 30 | | |
| 40 | | |
| 50 | | |
| 60 | | |
| 70 | | |
| 80 | | |
| 90 | | |
| 100 | | |

| Representative Name | Date | Issue | Reason For Change | Approved By |
|---------------------|------|-------|-------------------|-------------|
| | | | | |

Manufacture Assembly Document

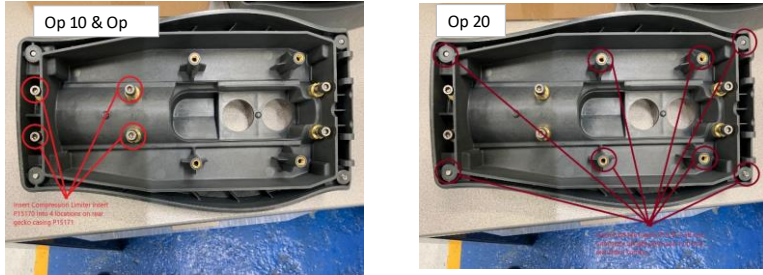


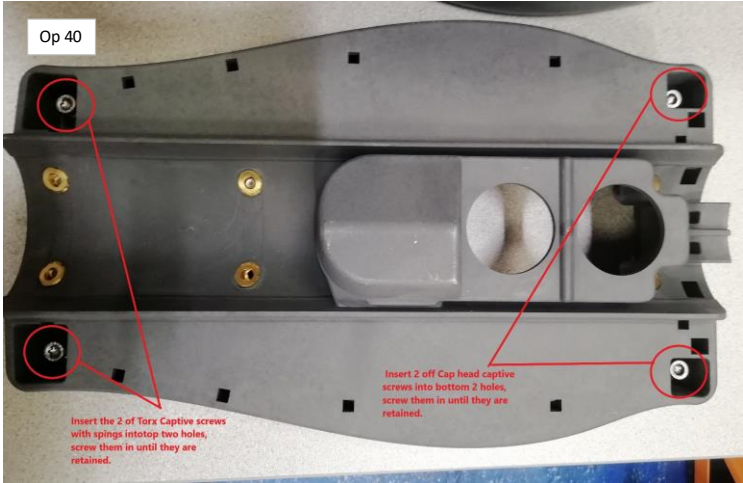
(Component Sub-Assembly)

| | | | | | |
|---------------------------|-----------------------|--------------------|----------------|--------------------|--|
| Process Description:- | Inserting front cover | Customer:- | Connected Kerb | Base Part Number:- | |
| Relevant Specifications:- | | Drawing Number:- | | New Part Number:- | |
| Specification Issue:- | | Drawing Revision:- | | Machine Number:- | |

| Op No. | OPERATOR INSTRUCTIONS | PROCESS IMAGES |
|--------|--|--|
| 10 | Insert 4 off P15291 M6 insert into front cover P15163. 1 in each corner of moulding. |  |
| 20 | Insert 4 off p15222 into P15163. 1 into each RFID mounting post. | |
| 30 | | |
| 40 | | |
| 50 | | |
| 60 | | |
| 70 | | |
| 80 | | |
| 90 | | |
| 100 | | |






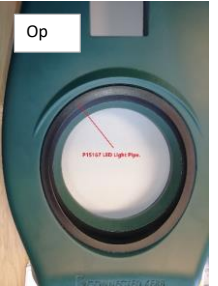

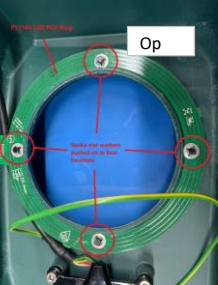

| Representative Name | Date | Issue | Reason For Change | Approved By |
|---------------------|------|-------|-------------------|-------------|
| | | | | |

| | | |
|--|----------------------------------|--------------------|
| Process Description:- Inserting Rear Gecko Casing | Customer:- Connected Kerb | Base Part Number:- |
| Relevant Specifications:- | Drawing Number:- | New Part Number:- |
| Specification Issue:- | Drawing Revision:- | Machine Number:- |

| Op No. | OPERATOR INSTRUCTIONS | PROCESS IMAGES |
|--------|--|---|
| 10 | Insert Compression Limiter insert P15170 into 4 locations on rear gecko casing P15171 |     |
| 20 | Insert 8 off M6 inserts P1529, 4 off into Connector upright posts and 4 off into rear side 4 corners. | |
| 30 | Assemble 4 off diaphragms P15267 to 4 off M6 Cap Head Captive screw P15174 . Assemble 4 off Spring P15175 to all 4 off captive screw with diaphragm. Assemble to 4 off compression limiters. | |
| 40 | Assemble 2 off spring P15175 to 2 Off M6 Cap Head captive screw P15174 and assemble 2 off spring to 2 off Torx M6 captive screw. Insert the 2 of Torx Captive screws with springs intotop two holes, screw them in until they are retained. Insert other 2 off Cap head captive screws into bottom 2 holes, screw them in until they are retained. | |
| 50 | | |
| 60 | | |
| 70 | | |
| 80 | | |
| 90 | | |
| 100 | | |



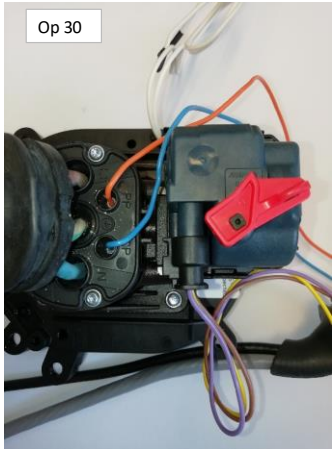
| | | | | |
|----------------------------|-------------|--------------|--------------------------|--------------------|
| <u>Representative Name</u> | <u>Date</u> | <u>Issue</u> | <u>Reason For Change</u> | <u>Approved By</u> |
|----------------------------|-------------|--------------|--------------------------|--------------------|

| | | | | | |
|---------------------------|---------------------------------------|--------------------|----------------|--------------------|--|
| Process Description:- | Front cover Electrical, Data assembly | Customer:- | Connected Kerb | Base Part Number:- | |
| Relevant Specifications:- | | Drawing Number:- | | New Part Number:- | |
| Specification Issue:- | | Drawing Revision:- | | Machine Number:- | |

| Op No. | OPERATOR INSTRUCTIONS | PROCESS IMAGES | | |
|--------|---|--|---|---|
| 10 | Assemble Rectangular P15263 'O' ring to front cover RFID recess ensure 'O'ring is pushed into recess. |  |  |  |
| 20 | Ensure Antistatic measures are in place, Slide P15264 Rectangular boot on Data harness to end of cable, assemble P15179 RFID reader board to connector and fit into rectangular boot. Assemble P15164 RFID Lens to open side of boot. | | | |
| 30 | Place RFID unit into hole on front cover. Assemble P15165 RFID back plate to front cover and screw in 4 off P15176 M4 allen screws | | | |
| 40 | Assemble P15167 Light pipe ring through front cover. Ensure light pipe is positioned correctly as shown. |  |  |  |
| 50 | Assemble P15166 LED PCB to locations on Light pipe ring moulding studs, push into place. Ensure PCB connector is in correct location as shown. Ensure data cable is located under PCB connector prior to assembling washers. Push 4 off Metal Star washers onto studs in four locations as shown using Tool TL..... Holding LED light pipe when | | | |
| 60 | | | | |
| 70 | | | | |
| 80 | |  |  |  |
| 90 | | | | |
| 100 | | | | |

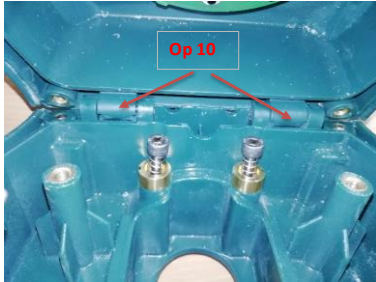

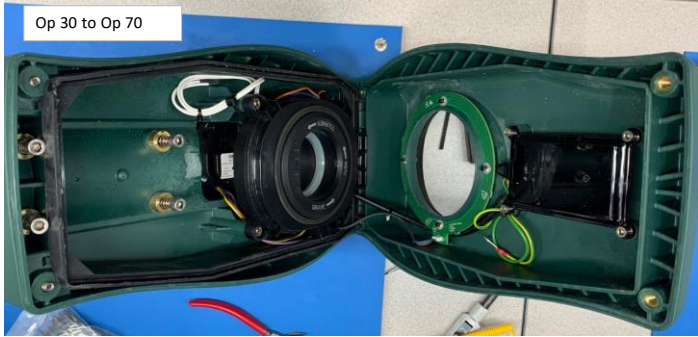


| Representative Name | Date | Issue | Reason For Change | Approved By |
|---------------------|------|-------|-------------------|-------------|
| | | | | |

| | | | | | |
|---------------------------|------------------------|--------------------|----------------|--------------------|--|
| Process Description:- | Wiring Mennekes Socket | Customer:- | Connected Kerb | Base Part Number:- | |
| Relevant Specifications:- | | Drawing Number:- | | New Part Number:- | |
| Specification Issue:- | | Drawing Revision:- | | Machine Number:- | |

| Op No. | OPERATOR INSTRUCTIONS | PROCESS IMAGES |
|--------|--|---|
| 10 | Get front cover assembly with Data harness and P15178 Mennekes Socket. |  |
| 20 | Insert 6mm power cable assy wires into L1 - BN, Earth - GN/Y and N - BL ensure locking screwa are fully tightened and check wires are secure. Take the Orange and Blue wires from the data harness and insert the Orange wire into the PP hole and tighten screw and insert the Blue wire into the CP hole and tighten screw. Ensure both wires are secured. | |
| 30 | Get Actuator supplied with the socket and locate in position and secure with 2 screws supplied. Plug the connector from the Data harness with the Purple, Brown and Yellow wires into the actuator. |  |
| 40 | | |
| 50 | |  |
| 60 | | |
| 70 | | |
| 80 | | |
| 90 | | |
| 100 | | |

| Representative Name | Date | Issue | Reason For Change | Approved By |
|---------------------|------|-------|-------------------|-------------|
| | | | | |

| | | | | | |
|---------------------------|----------------|--------------------|----------------|--------------------|--|
| Process Description:- | Final Assembly | Customer:- | Connected Kerb | Base Part Number:- | |
| Relevant Specifications:- | | Drawing Number:- | | New Part Number:- | |
| Specification Issue:- | | Drawing Revision:- | | Machine Number:- | |

| Op No. | OPERATOR INSTRUCTIONS | PROCESS IMAGES |
|--------|---|--|
| 10 | Get Front cover assy, Rear Moulding assy and 2 off Spirol Hinge pins P15169. Locate spirol pin in hinge of Rear moulding, align front cover hinge to rear cover hinge and compress Spirol pin through both parts. Repeat for second hinge. |   |
| 20 | Get Main gasket seal P15269 position onto rear moulding and press into place ensuring fully located. | |
| 30 | Feed Data Cable through rear moulding until cable grommet reaches casing and the pull grommet through locking into position with curve facing downwards. |  |
| 40 | Feed 6mm power cable through rear moulding positioning Mannekes socket to four mounts in moulding, feeding the orange, blue, purple, brown and yellow wires over the actuator whilst pulling and locking grommet into place again with curve of grommet downwards. (Important note whilst doing this ensure no wires or cables are trapped between socket and moulding) | |
| 50 | Secure the Mannekes socket into place with four off P15177 M6 cap head screws. | |
| 60 | Plug the LED power cable into LED PCB socket, ensuring fully located and cable tie lead to the main data cable. Coil up the 2 white wires from the Mannekes socket and cable tie them to the upstand as shown. | |
| 70 | Check assembly |   |
| 80 | Get 1 each of LH and RH Gecko bung Large P15270 and 1 each LH and RH Gecko bung small P15271 and place into small bag and place in upper cavity of rear moulding. | |
| 90 | Close Both mouldings together ensuring not to trap any wires and bag of bungs are located in assembly. Secure unit by tightening the two top Torx screws. | |
| 100 | Lay unit face down, Coil the mains cable and cable tie to secure. Coil the data cable and cable tie to secure. Unit is ready for packing. | |

| Representative Name | Date | Issue | Reason For Change | Approved By |
|---------------------|------|-------|-------------------|-------------|
| | | | | |

Gecko Manufacturing Assembly location, Alton Facility



Gecko Assembly Build Pack (P15185)

| | | | | | |
|----------------------|---------------------------------------|--------------------|----------|-----------------|----------------------------|
| Description:- | Gecko (Finished Assembly) | Part Code:- | P15185 | Material:- | Various Grades (Assembled) |
| Customer:- | Connected Kerb | Customer Part No:- | N/A | Colour:- | Various (Assembled) |
| Tool No:- | Various Tooling | Drawing No:- | RR149 24 | Masterbatch:- | N/A |
| Validated Machines:- | Various Machines / Secondary Op Equip | Drawing Issue:- | 1 | Material Code:- | N/A |

| DETAIL | FUNCTION | | | | FREQUENCY Quality Specific Operator Specific (Both) |
|--------|-----------|-----------|-------------|-------------|---|
| | Dimension | Tolerance | Lower limit | Upper Limit | |
| A | 354.43mm | ±5mm | 349.43mm | 359.43mm | 1st off, last off & in process |
| B | 148.50mm | ±5mm | 143.50mm | 153.50mm | 1st off, last off & in process |
| C | 204.71mm | ±5mm | 199.71mm | 209.71mm | 1st off, last off & in process |
| D | | | | | 1st off, last off & in process |
| E | | | | | 1st off, last off & in process |
| F | | | --- | | --- |
| G | | | --- | | --- |

Completed Assembly Dimensions:

Technical drawing showing dimensions A, B, and C. A 3D model of the assembly is also shown.

| | | |
|----------|--|---|
| REDIWELD | Rediweld Rubber and Plastics 60 Heaton Lane, Walsby Doncaster, South Yorkshire S24 0JL Tel: 0114 262 2222 Fax: 0114 262 2222 www.rediweld.co.uk | P15185 Connected Kerb Charger Casing GA 96mm Drawing Number RP149 24 Issue 01 |
|----------|--|---|

Additional Information

Utilising Fully Recyclable Cardboard Packaging:



Gecko Assembly Delivery Schedule (P15185)



Technical Moulding

Mr Stephen Richardson
Co-Founder of
Connected Kerb

Delivery Schedule & Quality (Testing)

Our Ref: PN/BM/SR
Date: 2nd June '20

Rediweld Technical Moulding
6-9 Newman Lane
Alton Hampshire
GU34 2QR

t. 01420 543007
f. 01420 544090
moulding@rediweld.co.uk

www.rediweld.co.uk/moulding

Gecko V.1.2 Assembly Supply & Demand Schedule

There are many factors that remain unresolved to allow the undertaking of manufacture of components & Sub-assemblies related to the Full Assembly build of Gecko Version 1.2.

As it stands the following items require a conclusion before regular demand of assemblies may continue;

- Colour/s of Gecko Assembly is to be determined, (Awaiting URGENT response from CK).
- Quality Control & Electrical Testing, (CK is to send Test Procedure & Equipment for use @ Rediweld).
- Packaging, (Initial Concept supplied to Warrington – CK to confirm acceptance & Sign-off).
- Awaiting final Lead-time confirmation from Supply for the Gecko Assembly items.

At the time of Rediweld ROM Cost the Greenflux Wi-Fi Board pricing was unresolved.
(An increase difference for the Packaging of the assembly was NOT included @ £12.25 each).

| Assembly Batches | FULL ASSEMBLY PRICES (Ex-works) (Packaging is Included) | | |
|-------------------|--|---|---|
| | 250-999off Batch (Full Assembly) £/each | 1,000-4,999off Batch (Full Assembly) £/each | 5,000-9,999off Batch (Full Assembly) £/each |
| (Full Assemblies) | £ 301.13 | £ 289.98 | £ 279.79 |

Considering the above outstanding items is complete and supply chain has fulfilled their requirements to the set lead-times. Rediweld will be capable of supplying 35-50off Assemblies per day based on an initial start-up Lead-time of 8-10 weeks (Call off Order to be sent in by 15th June '20).
This is to meet 1,000off Gecko Assemblies per month.

| Delivery Schedule (2020) | | | | | | | |
|--------------------------|---------|---------|--------|---------|--------|--------|--------|
| | June'20 | July'20 | Aug'20 | Sept'20 | Oct'20 | Nov'20 | Dec'20 |
| Grey | 50 | 50 | 250 | 500 | 1000 | 1000 | 500 |
| Black | 0 | 50 | 50 | 0 | 0 | 0 | 0 |

This Delivery Schedule is Valid for 30 days from above date & is subject to our Standard Terms & Conditions of Sale – Payment 30 days from Invoice Date.

I trust that the above meets with you approval. If you have any questions please give me a call.

Yours sincerely

Paul Norman

Paul Norman
(Director)

E & O E