



QUALITY MANUAL

INTRODUCTION

This Manual sets out the Quality Policy of Alternative Precision Sheetmetal Ltd. And defines the quality related responsibilities and organisation necessary to realise the policy. The company will at planned intervals review and if necessary update the Manual to ensure it represents the objectives set out in the company Quality Policy.

This document is strictly confidential to the recipient and its contents may not be disclosed to other parties without the prior written consent of the company.

All personnel engaged on in-house activities are trained and afforded adequate resources to carry out the functions required.

These activities are the inspection test (where applicable) and monitoring of processes detailed in Quality Assurance procedures.

It is the responsibility of the nominated Quality Management Representative to ensure that regular audits are carried out to verify conformance to systems and procedures within their relevant operation.

Internal Quality Audits are carried out by personnel who are not directly responsible for the activity being audited.

COMPANY PROFILE

Alternative Precision Sheetmetal Ltd. is a specialist engineering company that commenced operations in November 1997. APS Ltd. Was established to provide fine limit Sheetmetal work & welded fabrications to a wide range of customers. Our range of expertise includes laser cutting, CNC punching, MIG & TIG welding and all the associated operations that help us create a variety of engineering solutions for our customers.

We pride ourselves in carrying out manufacture to our customer's designs & specifications, using the latest in manufacturing technology. APS Ltd. is relatively a new company so we cannot provide our customers at present with the option of us carrying out any design & development, as we do not have the resources to support this. Although this will be reviewed in the future if there is seen to be a demand for this requirement.

The company operates from premises in Swansea, maintaining a widespread reputation for quality of work and service in providing sub-contract engineering to a variety of customers in commerce and industry.

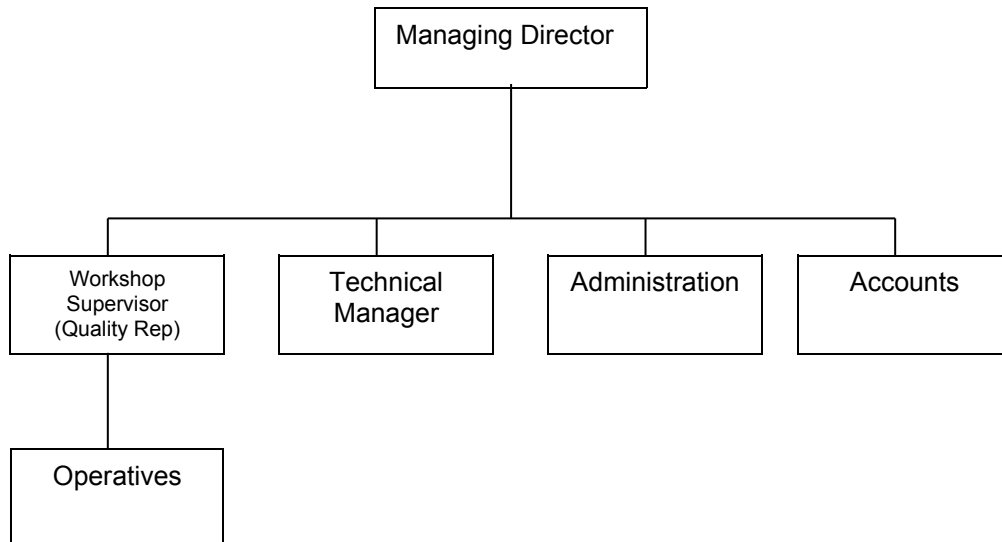
The company is committed to the operation of an independently verified Quality System as evidence of the excellence of the service provided to its customers.



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ORGANISATION CHART

The Organisation Chart defines the lines of responsibility and authority and identifies the Quality Representative report structure.



RESPONSIBILITY AND AUTHORITY

The Managing Director will:

- provide adequate resources and the environment to enable company staff to satisfy the requirements of the Quality Policy
- chair Management Review Meetings
- initiate action to prevent the occurrence of non-conformities
- verify the effectiveness of corrective and preventive action

The Workshop Supervisor / The Quality Representative is:

- responsible for the control of the production workforce
- responsible for the management of all administrative issues
- the main point of contact with the certification body
- directly responsible for co-ordinating and monitoring the Quality Management System by:
 - conducting internal audits
 - monitoring quality performance
 - reporting quality performance to the Managing Director
 - promoting customer requirements

The Technical Manager is responsible for conventional and CAD/CNC manufacturing

The Operatives are responsible for undertaking manufacturing/verification operations

The Accounts Clerk is responsible for general accounting and finance



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MANUAL ADMINISTRATION

1. Controlled copies of The Quality Assurance Manual are recorded and controlled by the Quality Representative.
2. Each custodian of the Manual is responsible for it's safekeeping and for prompt and correct entering of all amendments and additions.
3. Manual status will be identified by an individual issue number, there will be two controlled manuals. Additional manuals may be developed for specific customers, these will be identified as uncontrolled.
4. Amendments or additions to the Manual will be authorised by the Managing Director.
5. Changes to the Manual which are clarifications or corrections to spelling will not alter the issue number.
6. Changes involving working practices will incur an increase of one.
7. All issue changes will be recorded on the Manual Revision Index.
8. Issued uncontrolled copies of the Manual (e.g. customers) are not subject to the same updating procedures as controlled copies. However a record of their issue is maintained the distribution of uncontrolled copies are subject to the approval of the Managing Director.
9. Authenticity of the Quality Manual is identified by the coloured logo on each page. Copies of the individual sections or procedures may be issued. A record of such issues will be maintained as required.



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CORRELATION BETWEEN ISO 9001:2000 AND QUALITY ASSURANCE PROCEDURES

ISO 9001:2000 SECTION

QUALITY PROCEDURE

1.2 Application	Introduction/Policy
4.1 General Requirements	QP 1-11
4.2 Documentation Requirements	QP 7-11
5.1 Management Commitment	QP 10
5.2 Customer Focus	QP 1-2 6,9-10
5.3 Quality Policy	QP 1-11
5.4 Planning	QP 6,8,10
5.5 Responsibility, authority & Communication	QP 6,8,10
5.6 Management Review	QP 6,8-11
6.1 Provision of Resources	QP 3-4
6.2 Human Resources	QP 6,9,10
6.3 Infrastructure	QP 3,6,10
6.4 Work Environment	QP 1,10
7.1 Planning of Product Realisation	QP 1-11
7.2 Customer-related Processes	QP 1-11
7.3 Design & Development	QP N/A
7.4 Purchasing	QP 4,10
7.5 Production & Service Provision	QP 1-11
7.6 Control of Monitoring & Measuring Devices	QP 5-11
8.1 General	QP 1-11
8.2 Monitoring & Measurement	QP 6-8 10-11
8.3 Control of Non-conforming Product	QP 2-4, 6,8,9,10,11
8.4 Analysis of Data	QP 4,6,8,10
8.5 Improvement	QP 6,8,9,10



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<p>4.0 Quality Management System</p> <p>4.1 General Requirements</p> <p>The Quality Management System of APSM Ltd. Is based on three levels of documentation as follows:</p> <p>Level 1 Quality Manual Level 2 Quality Procedures Level 3 Records</p> <p>To ensure our customers have complete satisfaction and that they receive the Highest Quality Standards possible. APSM Ltd. Continually works in union with its Quality Management System, constantly monitoring its suitability and effectiveness throughout every stage of manufacture.</p> <p>When requested by our customer, Quality Planning is implemented and documents produced as Quality Plans etc. Quality Planning is mainly undertaken in line with documented Quality Assurance Procedures.</p> <p>A Cross-reference matrix which shows the company procedures and their relationship to ISO 9001:2001 is shown in this manual.</p> <p>4.2 Documentation Requirements</p> <p>All documents which support the Quality System are controlled. The Quality Manual/policies and procedures are the responsibility of the Managing Director and approval is formally indicated by signature. Due to the size and nature of the organisation two copies of the Quality Manual and supporting Procedures exist with distribution as follows:</p> <p>Copy 1 - General Office (MD) Copy 2 - Works Office (W'Shop Sup.)</p> <p>All other documents are controlled via associated procedures.</p> <p>5.1 Management Commitment</p> <p>The Managing Director will review the entire Quality Management System. Information will</p>	<p>Be prepared by the Quality Representative or other personnel as required. Review Meetings will be held at a minimum annually, or as frequently as the Managing Director stipulates.</p> <p>Items discussed in the meeting are against a fixed agenda. Review meetings are formal and minuted, informal meetings will also be held at the Managing Directors discretion. Incorporating every individual who participates in affecting our customer's product. The agenda will be set by the Managing Director who will discuss any relevant issues i.e. Quality Objectives and how they will be met. Including any amendments in processes that have been implemented/Customer Feedback/Customer complaints & any other items established affecting the quality of our customer's products. Any further communication will be adhered via the workforce notice board.</p> <p>5.2 Customer Focus</p> <p>APSM Ltd. Prides itself in providing customers with the highest possible standard of service. Using the latest in manufacturing technology. Every customer is unique and we strive to provide solutions to cater for all their engineering requirements. Using our Quality Assurance processes and our computerised management system, we provide our customers with an invaluable service & aspire to build successful working relationships. To guarantee Customer Satisfaction. APS Ltd. Continually monitors Quality Management system through our :</p> <ul style="list-style-type: none">• Internal Audits• Management Review Meetings• Non-conformance Reports• Customer Feedback <p>Our objectives/Customer requirements are determined by our customer feedback/Customer surveys/follow-up calls after deliveries are made. All customer feedback will be reviewed in the Management/Informal Meetings with the aim of setting objectives and implementing any changes to maintain and enhance customer Satisfaction, ensuring targets are met.</p>
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5.3 Quality Policy

The Management of APS fully recognises the need for the service supplied by the company to be identified as being of the highest quality. The following has been issued by the Managing Director:

Alternative Precision Sheetmetal Ltd. Aims to provide exceptional Customer Service in line with the products and services offered. This will be adhered and realised through:-

- Ensuring that customers obtain a prompt service which effectively satisfies their needs.
- Provide staff with suitable training to carry out their duties as part of a team. We will evaluate the effectiveness of our training by our Training Matrix/Management Review meetings/Customer Non-conformances/Customer Feedback.

The company constantly monitors its quality performance and will implement improvement based on: ISO 9001:2000

5.4 Planning

The Managing Director reviews the entire Quality Management System utilising all the collated information by the Quality Representative/Appointed Person. Customer requirements are reviewed at the initial point of contact. Enquiry through to Contract. Here their requirements are assessed ensuring their requirements are within our scope of manufacture. We identify any objectives that need to be set, by reviewing:

- Supplier Performance
- Customer Feedback
- Non-conformances received
- Training
- Results from Audits

Once objectives are set and processes are in place, these are reviewed by carrying out audits. These are planned on our Internal Audit Programme, which can only be authorised by the Managing Director annually; also he will determine the frequency required. We review our targets/Objectives/Customer Feedback in our Management Review/Informal Meetings by analysing the processes listed above. Quality Planning is mainly undertaken in line with our documented procedures.

5.5 Responsibility, Authority & Communication

The organisation chart identifies the structure of key staff may be incorporated, dependant on the work load. As a company our aim is to become a completely multi-skilled workforce. So we can continue to provide our customers with the highest standard of service all round. Even when a key member of staff is absent. So the Quality standard is always continual in workmanship and service.

The Workshop Supervisor has been nominated Quality Representative. She is responsible for:-

- Co-ordinating and monitoring the Quality System.
- Ensuring that timely and effective action is taken to ensure compliance with the system.

Quality Procedures define the purpose and responsibility for each activity. The Managing Director ensures that any Quality Issues/Customer requirements/Customer Comments-Positive/Negative are adhered to by every employee by means of: -

- Management Review Meeting
- Informal Meeting
- Staff Notice Board

Also any employee feedback/Information on their daily activities as operators, is taken into account. As their views/opinions in all areas are valuable in aiding steps to improvement. All with the aim to provide our customers with total Customer Satisfaction.

5.6 Management Review

The entire Quality System is reviewed by the Managing Director. Information for review will be prepared by the Quality Representative or authorised personnel as required. Items are discussed against a fixed agenda. Review meetings are formal and minuted. Management Reviews are held at a minimum annually or more frequently at the discretion of the Managing Director.

The Management Review/Informal meetings are held as shown on our Internal Audit Programme. The planned dates for the audits throughout the year are set and are authorised by the Managing Director. In



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<p>Positive/Negative are discussed along with any findings from our audits. Any targets are planned including any results from any targets which were previously set. Any system action required is undertaken by the Quality Representative or nominated person. Dates to review any system action are set. A complete system review is undertaken, covering the areas highlighted on the fixed agenda.</p> <p>6.1 Provision Of Resources</p> <p>APS Ltd. Determines any customer requirements by holding Management Review/Informal Meetings. Here an agenda is fixed reviewing:</p> <ul style="list-style-type: none">• Training Requirements• Customer Feedback• Customer Non-conformances• Positive/Negative Feedback• Supplier Non-conformances• Employee Comments – Views/Opinions <p>These are analysed to determine any future requirements. The Quality Representative will also provide information from the audits carried out throughout the year. The Training Matrix and our Employee Training Records will also be reviewed by all attendees in the meetings, to establish any future requirements. To ensure that the methods being applied are effective enough for their intended use. All with the aim of achieving improvement and Customer Satisfaction.</p> <p>6.2 Human Resources</p> <p>APS Ltd. Management is aware of the importance of ensuring the operator working on our customer parts is fully competent and is capable of achieving the Quality Standard required by our customers. Employees are selected for skills and aptitude to the achievement of the company's aims. Employees Training is structured to the companies needs, and completion of training is reviewed annually by the Managing Director. A record of the reviews recorded, including Customer non-conformances. If the shopfloor Supervisor feels necessary, the operators are provided with a re-train, dependent on the severity and frequency of the occurrence, this is also at the discretion</p>	<p>Of the Shopfloor Supervisor. He monitors the operators carrying out their activities and reviews any operator who is on re-train. All employees Training Records are kept up to date by the Quality Representative/Shopfloor Supervisor. Any re-trains are entered onto the Training Matrix. These are then reviewed in the Management Review meetings, where the effectiveness of the Training is evaluated.</p> <p>6.3 Infrastructure</p> <p>All new work undertaken by APS Ltd. Is subject to a formal review to evaluate its commercial viability and technical capability before agreement to supply is made. All APS equipment is subject to maintenance or service contracts, the level of which is dependant on the type of equipment and frequency of use and manufacturers recommendations. All hardware and software are backed up onto a main server daily. Also Two hardcopies are taken fortnightly , one copy is kept in the company safe and the other is taken offsite by management. In the event of system failure we would be able to retrieve our information, without any disruptions to the service we are providing our customers. To ensure we are always able to maintain a reliable efficient service. APS has a service contract on its company vehicle, ensuring any underlying requirements are met and if necessary repaired. Without hassle or inconvenience to our customers. Also before a company vehicle is taken offsite, the driver ahs to carry out a complete vehicle inspection. To ensure the vehicle is road worthy, checking for:-</p> <ul style="list-style-type: none">• Light Defects• Tyre Wear & Tear/Pressure• Deterioration/Damage to body work• Oil/Water etc.. <p>The driver signifies that he has completed the vehicle inspection and is satisfied that the vehicle is roadworthy by clocking onto the Driving Operation. This is on our computerised management system, using the Shop Floor Data Capture. If any defects are found then Management are to be informed To arrange repairs or alternative transport.</p>
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<p>6.4 Work Environment</p> <p>When an enquiry is received off a customer the contract is assessed for its suitability and to ensure that its within our scope of supply. Also to obtain any particular requirements if necessary. APS also uses external consultants who carry out work risk assessments and tests to verify noise levels, to ensure that we are working with the standards set by the HSE. Guaranteeing a safe working environment for all employees. Every employee undergoes Induction Training, raising Health & Safety Awareness, this also includes us providing information on Hand & Arm Vibration Syndrome/Manual Handling etc..</p> <p>The Shopfloor Supervisor issues the work to the operators to ensure that they are competent to carry out the particular job safely and to guarantee the required quality standard. Training is reviewed by the Managing Director/Shopfloor Supervisor and other appointed members of staff.</p>	<p>The inspection is conducted by the operators and is formally indicated by them clocking off the job as complete on the computerised management system. In all cases the above procedures are in place to hold, identify and segregate non-conforming material.</p> <p>The Shopfloor Supervisor ensures that non-conforming/re-worked products are checked prior to release. Records of inspection are held on our computerised management system, as the individual operators signifying the product has passed inspection on their operation.</p>
<p>7.1 Product Realisation</p> <p>When APS receives an initial enquiry, the job is reviewed to ensure its suitability. All customer drawings and documents are maintained to demonstrate the effective operation of the Quality System. Records are retained for periods defined either internally by customers or legal requirements. Records are made available for scrutiny by either internal or external parties. If a customer supplies a drawing with a revision change, then the old revisions are destroyed and the new revisions is stamped and is superseded in our computerised management system. To ensue we are always manufacturing to the latest revision. Any special customer requirements for manufacture are noted on the customer's Route card, which is generated on our management system i.e. Tolerances/Product Finish/Packaging/Delivery Requirements. If they are not specified on the customer drawings. Incoming Material is verified to ensure that the purchase order requirements have been met. The system of inspection and test is documented and controlled by individual Route cards and a computerised Management system. Final inspection is conducted on all items to ensure full conformance to customer requirements.</p>	<p>7.2 Customer-Related Processes</p> <p>Documentation and controlling the planning, manufacturing and verification process by the use of a contact/Route card on our computerised management system. When a customer places and order the contract is generated from their individual Quotation. The revision status for the part is checked and is entered into our computerised management system. Including any customer special requirements i.e. Delivery method. The delivery method is logged via the contract but is also displayed o the route card when generated. The delivery method is selected and if the delivery address is different to the customers, then this can also be selected. Any special labelling/packaging requirements are also displayed, to ensure our customer requirements are adhered. The planning/manufacturing and verification process is undertaken by the use of our Quotation/Contract/Routecards and a computerised management system. Including bar-coded scanning for individual operations and operators. Planing of processes are dependant on the complexity and taking into account the capability and availability of equipment. Long term contracts specifying "call off quantities" are controlled via a Kan Ban process. With all information being controlled via a computerised system. Workmanship is achieved by employing trained qualified staff. Our computerised management system provides us and our customer with total tractability throughout every process of manufacture. Which enables us to give our customers up to date progress reports when requested.</p>



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7.3 Design & Control

Design and Development does not fall within the scope of products and services supplied by APS. It has been decided that the requirement will be reviewed annually in the Management Review Meeting. Although at this time due to us being a relatively small company, we do not have the resources or demand to resource this. Therefore this section of the Standard is not applicable.

7.4 Purchasing

Purchases are mainly in line with consumable items, materials and parts specified by customer or services that cannot otherwise be economically provided. To minimise stock levels, materials are mainly purchased for specific jobs. To add to tracability when a purchase order is raised our customers individual contract number is added to the Purchase Order. Suppliers of items and services which could effect the quality of the service offered by APS are listed and approved. The suppliers are authorised by the Managing Director or Quality Representative and are evaluated as part of the Management Review Process. Also the Supplier Rejection Notes are analysed, to eliminate any unreliable sources. The list of Approved Suppliers is held on our computerised Management System. When requested products may be verified either by APS employees or their customer at the supplier's premises. This requirement must be stipulated at time of order. Purchases are either formally or verbally communicated.

7.5 Production & Service Provision

APS Purchased a computerised Management System which enables us to enter all the necessary manufacturing information. The Route cards display all the necessary working instructions with bar-coded operations. Any special requirements are arranged when the customer's order is received. The system inspection and test is documented and controlled by our computerised system. Final Inspection is conducted on all items to ensure conformity. All equipment is PAT tested and have the necessary service contracts. Where machines are serviced to ensure reliability.

All Inspection equipment within the company for measurement are recorded, controlled and calibrated. It is the Policy of APS to ensure that appropriate facilities are available for the handling/storage and transport. Also that they are protected from damage and deterioration. Customer guidelines are followed as specified. All employees must ensure that products are handled in a safe manner. Fork Trucks are only operated by trained staff. Stored items are periodically checked to verify conformance materials are identified by labelling. Materials which are found to be unacceptable is communicated to the customer/Supplier. In all the above cases the Shopfloor Supervisor ensures that non-conforming/re-worked products/material are checked prior to release. Records of inspection are maintained electronically. Before any products are released full inspection is conducted by operator/Shopfloor Supervisor. Which is formally indicated and is logged on our computerised management system.

7.6 Control of Monitoring and Measuring Devices

All inspection equipment used within the company for measurement are recorded controlled and calibrated. All our Dial/Digital Callipers/Height Gauges are labelled for identification and are the calibration date is visible. Including the persons responsible for last calibrating and verifying them to the deviation standards set. All calibration Standards are traceable to National Standards. All calibration records are fully maintained and updated when calibration has been completed. The frequency of calibration undertaken has been set by the Managing Director, this may be altered by the Managing Director. Any other Measuring device i.e. Tape Measures/Rules/Protractors/Hand Gauges are visually checked for damage/deterioration. If any measuring devices are found to be malfunctioning/damaged, then this is brought to the attention of the Managing Director. Who will assess the validity of previous inspections carried out with the device. Steps will be taken to recover any suspect products. Any malfunctioning measuring devices found, will be immediately removed from use. Until corrective action has been taken to arrange,



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<p>Either repair or a replacement. Where suitable equipment is not available within the company, then equipment may be hired, or the entire process may be subcontracted.</p> <p>8.1 General Measurement Analysis & Improvement</p> <p>The Inspection and test status is retained throughout all stages of the process:</p> <ul style="list-style-type: none">• Receipt and Storage• Manufacturing• Despatch <p>This is achieved by a combination of physical location, labels/Process Documentation and Inspection Records. Our Quality Management System is constantly reviewed via our internal audits/Management Review Meetings/Customer Feedback/Non-conformances. The results from the above are discussed, targets are planned and set, then the collated results are reviewed. Our Quality Management System is also totally reviewed by us auditing our system against the National Standard. This will be carried out by the Quality Representative and the results will be analysed by the Managing Director.</p> <p>8.2 Monitoring and Measurement</p> <p>APS will monitor the level and standard of service that it is providing its customers by carrying out Internal Audits. Audits are planned to ensure the continual effectiveness of the system. Audits check the current practices against system documentation. All audits are carried out to our annual audit programme. Audit findings are documented and non-compliances are recorded, ready to be reviewed for corrective action. Failed audits are reported and re-audits are carried out to confirm completion of effective action.</p> <p>The Managing Director will decide on the most effective method which is to be used for collating customer feedback. This will be decided in the Management Review meetings. Once the method for obtaining customer information has been agreed. The Quality Representative will ensure that the agreed method, establishes all the desired requirements. The results will be collated and will be presented by the Quality</p>	<p>Representative, in the Management Review/Informal Meeting. It will be reviewed to determine if the method used was constructive and informative. Also to see if our objectives were met, you ensure any amendments need to be made. All results from any form of survey carried out will be reviewed annually, also against previous methods used. In our Management Review Meetings to determine any improvement/deterioration in service. Also to review if the previous changes have been beneficial to us and customers.</p> <p>8.3 Control of Non-Conforming Product</p> <p>APS maintains an effective System for the control of contracts. Any contract, which fails to meet requirements is identified and reviewed.</p> <p>When a non-conformance is reported by a customer, the customer complaint process/system is invoked. Details of the non-conformance identified during manufacturing process are detailed on the Route Card and a Red Status Ticket is attached to the item/s.</p> <p>Corrective and Preventative actions are reviewed as a means of identifying areas of improvement and are subject to the Management Review Process. Procedures exist within APS to identify and establish corrective and preventative actions in the event of product failure. These include:-</p> <ul style="list-style-type: none">• A formal analysis of all customer complaints• Process concerns• Supplier Complaints/Reject Notes <p>Corrective and preventative actions are subject to review by Management, and appropriate actions are planned and implemented to ensure compliance with customer's schedules.</p> <p>Re-make/Re-work Route Cards are generated from our customer original Delivery note. Also a notation may be added explaining the nature of the complaint for future reference. The non-conformity is investigated to prevent re-occurrence and necessary amendments are made. If required the operators are informed and an informal meeting will be held to raise awareness.</p>
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<p>The Route Card is then sent to shopfloor with top priority for either re-work/re-make. The Non-conformance procedures/processes are followed to log the event.</p> <p>Supplier rejects are raised through the original purchase order. The supplier is then informed and the non-confirming product/parts are red tagged awaiting exchange/collection. The Rejection Note is retained in the Supplier Reject file for review in the Management Review Meeting. Both the above provides us with total tenability throughout both processes. Customer/Suppliers are both made aware of preventative measures put in action, to prevent re-occurrence in future orders.</p> <h4>8.4 Analysis of Data</h4> <p>In our Management Review/Informal Meetings all collated information on the following:-</p> <ul style="list-style-type: none">• Non-conformances• Customer Feedback• Supplier Rejections• Employee Training/Appraisals• Results from Audit• Results from Quality Review Audits <p>Will be reviewed to evaluate and establish the effectiveness of current procedures/processes already existing. Any amendments required to existing procedures will be discussed and the objectives will be established. Any changes will be reviewed through the year to ensure the changes have been beneficial to us and our customers. To enhance Customer Satisfaction.</p> <h4>8.5 Improvement</h4> <p>Non-conformances/Results from any surveys/Customer Feedback/Corrective/Preventative actions will be reviewed as a means to identify areas of improvement and are subject to our Management Review Process.</p> <p>All Non-conformances from Customer/Suppliers are recorded and are investigated once they have been identified. Preventative Action/Procedures are put into place immediately, once the Root Cause has been determined. Our Customers/Suppliers</p>	<p>Are informed of our corrective action, to avoid re-occurrence on future orders. Any preventative/Corrective actions are formally reviewed and we ensure our customers are completely satisfied with our actions and the outcome.</p>
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Continual Improvement

