Afriso Eurogauge Ltd

Quality Manual

1. Quality management system

1.1.1 General requirements

The company has undertaken to develop, document and implement a quality management system in accordance with the requirements of BS EN ISO 9001:2015.

1.2 Documentation requirements

1.2.1 Quality and Procedures Manuals

In order to meet the requirements of BS EN ISO 9001:2015 the company maintains quality and procedures manuals in accordance with the above standards. Our quality management system documented procedures are listed in appendix C.

Work instructions have been developed to supplement the controls included within the company procedures. The procedures and work instructions refer to all additional documentation and records needed to conform to the standards.

The scope of the quality management system covers all clauses of the above standards there are no exclusions. Our scope of activities is the design and manufacture of level measurement and environmental monitoring equipment.

The interactions between the various processes of the quality management system are detailed in process maps contained in appendix B of this manual.

1.2.2 Control of documents

Procedures are in place to establish and maintain control of all documents and data, including data held on electronic media, relating to the standards BS EN ISO 9001:2015.

All documentation is checked and approved by authorised personnel prior to issue. Systems are in place to ensure that only the correct issue of documentation can be issued to the relevant company sections.

Procedures are in place to ensure that authorised personnel remove and destroy obsolete documentation prior to the issue of new documentation.

Obsolete documentation, held for historical or reference purposes, is marked as obsolete and is retained separately from current documentation.

Procedures are in place to ensure that only authorised personnel can change data and documentation. Changes to documentation are shown by raising the issue or revision numbers of the document and are documented, either on modification records for drawings, or revision lists for quality management system documentation.

External documentation such as BS standards are held by the Technical Manager within the Technical Department [EQP19].

1.2.3 Control of records

Records of work and batch controls, inspections, defect feedback data and complaints are retained for a minimum period of 2 years from production of the product. Training records are retained for the period of employment plus 2 years.

The Technical Manager retains records of internal audits, audit reports, corrective actions raised, and review meeting reports for a period of not less than two years.

Databases contain approved suppliers and Continual Improvement Review Minutes contain details of supplier monitoring

All quality records are filed in such a manner as to be readily identifiable, retrievable and in a legible condition

2. Management responsibility

2.1 Quality Policy

Afriso Eurogauge Limited is committed to a quality policy that ensures that the company's customers are provided with products of consistently high level of quality, reliability and safety that meet all statutory and regulatory requirements. The company is further committed to continually improving the quality management system by the setting and implementation of quality objectives. Quality objectives are mainly, but not exclusively, set at management review meetings.

To achieve this objective the company has committed the resources required to implement a quality management policy designed to meet or exceed the requirements of BS EN ISO 9001:2015.

The maintenance of quality is the responsibility of all staff, and each is responsible for implementing the requirements of this manual. To assist staff in this endeavour, the management has established a system of procedures and work instructions whose effectiveness is monitored through internal audits and management reviews.

The Managing Director has placed the responsibility for the maintenance of the company quality management system on the Technical Manager.

WB Lawther,
Managing Director.

2.2 Customer focus

Customer satisfaction is gauged by:

- Customer feedback via contact with field sales personnel.
- Non-receipt of complaints from the customer.
- Repeat orders from customers.
- Feedback of vendor rating information from the customer.

It is not company policy to have formal procedures of the questionnaire type that directly contact the customer to establish if they are satisfied with the products and services received.

2.3 Responsibility, authority and communication

2.3.1 **Managing Director** **W B Lawther**

The Managing Director is responsible for:

- Reporting to parent Company on UK Company performance, marketing, and integration of group policies.
- The formulation and implementation of policy, conformity of product, and the maintenance of the quality assurance criteria set out in this manual.
- The administration of company activities and personnel.
- The control of the financial and accounting activities of the company.

Office Administrator/Sales **T J Carter**

Reports to the Managing Director and is responsible for:

- The formulation of marketing strategy in liaison with the managing director.
- External and internal sales; preparation of enquiries, customer queries and customer liaison.
- Working with the Technical Manager on specialist customer applications.

Technical Manager **D C Ward**

Reports to the Managing Director and is responsible for:

- Product research and development.
- Ensuring that all requirements specified in this manual are implemented and maintained.
- All company product inspection and test functions.
- The quarantining of non-conforming goods and materials, both incoming and produced by the company.
- Production planning.
- Production engineering.
- Manufacturing and assembly.
- Quality control of manufactured and purchased product.

External Accountant/Business Support **N. Grobety**

Reports to the Managing Director and is responsible for:

- All areas of financial management including financial planning, management reporting and analysis; internal controls and compliance functions.
- Human resources administration.
- Purchasing and stock control.

Management Representative

The Managing Director has appointed the Technical Manager as the Management Representative and has authorized him to implement, maintain and report on the performance and status of the quality management system in conformance with the requirements of BS EN ISO 9001:2015

2.3.2 Organization Chart (See Appendix A)

2.3.3 Internal communication

All members of staff have access to the quality management system via the company intranet system. The quality manual, procedures manual and work instructions can be viewed on any computer station connected to the network.

2.4 Management review

2.4.1 General

The systems and procedures established in accordance with this manual are periodically and systematically reviewed by senior management, through the results of internal and external audits and management reviews, to ensure their continued effectiveness and compliance to BS EN ISO 9001:2015.

2.4.2 Review input

Management review meetings, chaired by the Managing Director, are held at least once a year with a fixed agenda, and are attended by members of senior staff, including the "authorised person". The review is based upon the following:

- The results of external and internal audits and the status of corrective actions raised during the audits.
- Customer complaints / feedback.
- Fault analysis of production processes.
- Follow up of corrective and preventive actions raised at previous review meetings.
- Company changes that could affect the quality management system.
- Possible improvements to the system.

The Technical Manager retains records of all internal audit reports and management review meeting minutes that are available for review, as required.

2.4.3 Review output

The following actions are taken, where necessary, subsequent to management review meetings:

- Corrective actions are raised, where necessary, to improve the effectiveness of the quality management system.
- Preventive actions are taken, where practical, to prevent a recurrence of the non-conformances leading to the above corrective actions.
- Recommendations are made, where practical, either to product design or to manufacturing processes to ensure that products are better suited to customer requirements.
- Actions are taken, where necessary, to ensure that adequate resources to operate the quality management system are available.

3. Resource management

3.1 Provision of resources

The company has procedures in place to ensure that adequate management and equipment resources are available. These include:

- The provision of trained personnel, to guarantee the operation and continual improvement of the quality management system.
- Ensuring customer satisfaction by meeting customer requirements.

3.2 Human resources

3.2.1 General

Appropriate training is given to all personnel engaged in direct or indirect activities affecting conformity of product to ensure they are competent with appropriate education, training and experience.

3.2.2 Competence, training and awareness

Procedures have been put in place to identify training needs and to provide for the quality training of all personnel performing work affecting conformity of product.

Staff are employed with the highest level of competence and experience available, backed up where required with suitable qualifications.

Management and senior staff attend lectures and courses to keep abreast of latest developments and techniques and pass information so gained to other levels of staff via ‘in house’ individual training.

Specialist skills and training are developed through ‘in house’ work instructions, ‘on the job’ instructions and via recognised training courses.

Records of appropriate education, skills and experience, training received and evaluations of the effectiveness of that training are held within the company personnel records system.

3.3 Infrastructure

The production of reliable products that satisfy industrial customer requirements is of prime importance to the company. A system of controls has been established that enables the product to reach the customer in the best possible condition. These controls include:

- The implementation of procedures and work instructions that ensure conformity of product.
- The provision by the company of suitable production equipment and working environments that are maintained at the standards required to ensure conformity of product.
- The provision of suitable support services such as transportation, communication and information systems.

3.4 Work environment

The management has provided a work environment (relating to the conditions under which work is performed including physical, environmental and other factors such as noise, temperature, humidity, lighting and weather) that ensures that conformity of product requirements are met.

4. Product realization

4.1 Planning of product realization

The company plans and develops the processes required for product realization through the following activities, where appropriate:

- The preparation of quality plans. In practice this would only occur in very exceptional circumstances for very large contracts where, there was a contractual requirement to do so.
- The identification and purchase of any process control, test or inspection equipment necessary to achieve the desired conformity of product.
- The creation of appropriate quality control, test and inspection techniques, including the development of new instrumentation, where necessary.
- The identification of suitable test and inspection stages.

4.2 Customer related processes

4.2.1 Determination of requirements related to the product

When making a tender or providing a quotation the company shall ensure:

- The customer's requirements are adequately defined and documented *
- The company has the capabilities to meet the contract or order requirements *

* Including delivery and post delivery activities. Post delivery activities may include actions under warranty provisions, contractual obligations such as maintenance services and supplementary services such as recycling or final disposal.

Where relevant, design specifications, including statutory and regulatory requirements, are to be agreed and documented prior to a project commencing.

Upon receipt of an order it shall be established that:

- When the order has been received verbally, the company shall ensure that order details are confirmed and agreed before acceptance.
- Any differences between the companies tender and the customer's order are resolved.

4.2.2 Review of requirements related to the product

As the majority of the company's products are supplied as catalogue items, the requirement for contract review is negligible, but will be carried out when required. Contract reviews, should they prove necessary, are documented and include the following:

- Adequate definition of product requirements.
- The resolution of any differences between the customer's order and the company's tender.
- An assessment that the company can satisfy the customer's requirements.

The results of contract reviews are also considered before drawing up the final specification for large projects.

4.2.3 Customer communication

Procedures are in place to ensure that there is adequate communication with the customer concerning:

- Product information, including specifications and installation and commissioning instructions.
- Enquiries, order alterations and delivery dates.
- Handling and recording of complaints.

4.3 Design and development

4.3.1 Design and development planning

The Technical Manager continuously monitors the progress of projects and assigns responsibility to staff for each phase of the project, as required. The company ensures, through employment, training and procurement procedures that staff members are adequately qualified to carry out any development work required.

The design work undertaken mainly involves variations of existing products and application techniques.

Design procedures define and enable the review and exchange of information and documentation between different departments during a development project.

4.3.2 Design and development inputs

Design specifications are agreed and documented by the Technical Manager and the Managing Director prior to projects commencing. The specifications include:

- Full functional requirements.
- All applicable statutory requirements.
- Any other relevant information.

The results of contract reviews, where relevant, are taken into account before drawing up the final specification.

4.3.3 Design and development outputs

Design procedures are in place that ensure that the outputs from the design and development processes meet the following requirements:

- The design conforms to the specification.
- Acceptable tolerances have been defined.
- Design characteristics essential to the safe and proper functioning of the product are defined, where relevant.
- Design documentation is reviewed prior to release to other departments.

4.3.4 Design and development review

Review meetings are held at appropriate stages in the design process with representatives of all sections involved in the design. Their purpose is to ensure that the design is going to meet the specification and that any problems arising are resolved. The review will include, as appropriate, the following:

- Ensuring relevant design stages have been completed on schedule and correctly documented.
- Revision of the project schedule if problems have been experienced or if a more urgent project requires completion.
- Assessment of possible EMC/LVD problems, where applicable.

The minutes of the meetings are held in the product technical file.

4.3.5 Design and development verification.

The design output is verified by internal testing against the design specification at appropriate points and the outcome recorded in the product technical file.

4.3.6 Design and development validation

Design validation tests will be carried out, as far as is practical, under simulated site conditions and the results recorded in the product technical file. These tests are carried out internally.

4.3.7 Control of design and development changes

Any changes to the design or the design specification will be approved by the Technical Services Manager, the Managing Director or their delegates. The changes shall be verified and validated prior to the design going into production. Details of the changes are documented in the product technical file.

4.4 Purchasing

4.4.1 Purchasing process

Procedures are in place to ensure that purchased product conforms to the company's specified requirements and, where applicable, to the requirements of BS EN ISO 9001:2015.

Where the company chooses to outsource any process to an external party that affects product conformity to requirements, the type and extent of control applied shall be defined in the purchasing information.

To ensure that the purchased goods and services meet, and continue to meet, the company's quality requirements, a database of approved suppliers, sub-contractors and distributors is maintained by the Technical Manager. To qualify for inclusion upon this database a supplier must prove to have a satisfactory record for supply of goods or services to the company through trial purchases.

The degree of goods inwards inspection on purchased product is defined in company procedures. Supplier's quality performance is monitored quarterly as part of the Continual Improvement Review process. Suppliers who fail to perform are removed from the database.

4.4.2 Purchasing information

The company have an official purchase order form, utilised for purchased items which contains a clear, concise description of all items to be purchased and fully specifies, where necessary, the quality levels to be met.

Any work instructions or similar documents necessary to clarify the requirements of the order are attached to the purchase order.

4.4.3 Verification of purchased product

All goods purchased by the company, for use in the manufacture and assembly of its products, are subject to goods inwards inspection. The inspection levels required are laid down in company procedures and are based on the supplier's previous history and on supplier assessment audit results.

The company reserves the right to conduct audits at a supplier's premises to verify the quality of the goods or services being purchased, although in practice this seldom, if ever, occurs.

4.5 Production and service provision

4.5.1 Control of production and service provision

The company has put in place procedures to ensure that all production and post-production processes are carried out under controlled conditions. These include:

- The availability of complete product specifications.
- The availability, as required, of work, inspection and test instructions.
- The availability and use of suitable test and measurement equipment.
- Ensuring that all production and post-production processes are correctly implemented.

4.5.2 Validation of processes for production and service provision

There are no production processes currently used by the company, or that the company is likely to use in the foreseeable future, in which the output cannot be verified by subsequent monitoring or measurement.

If at a future time the company does employ processes where the output cannot be verified by subsequent monitoring or measurement then procedures will be put in place to ensure validation of the process.

4.5.3 Identification and traceability

Items are identified by:

- Items are correctly identified throughout all stages of the production process by works order documentation including bills of materials and work instructions, as appropriate.
- Test, inspection and serial number labels.

Traceability of items is controlled, where required by:

- Test and inspection records linked to sales order numbers.

The company does not at present link purchased product to specific works or sales orders.

4.5.4 Customer property

The company is seldom required to accept material from customers for inclusion in its products. If the occasion arises, any material supplied by the customer on free embodiment loan is subject to the same controls and procedures as purchased items.
If necessary, the material will be uniquely identified to the customer and held in quarantine until required.

Title to customer property including intellectual property and personal data therein remains with the customer unless subject of a special agreement.

Customer product returned for repair is inspected and segregated on arrival prior to being booked in and processed.

4.5.5 Preservation of product

Most of the company's products are catalogue items for which standard packaging materials are purchased. The company is aware that damage and deterioration can occur through bad handling, storage and packaging methods and has developed procedures to control these operations.

Where customer requirements determine a deviation from the standard packaging methods a work instruction will be produced and attached to the works order documentation relating to that customer's sales order.

Procedures are in place to ensure that items are clearly identified at all times.

The company provides suitable handling equipment, designed to prevent damage or deterioration of product during storage or movement throughout the manufacturing and assembly processes.

The goods inwards and despatch areas provide adequate and safe storage facilities for received items and items awaiting despatch.

Storage areas are provided throughout the company to house materials, stock finished product items and purchased items for use within the finished products.

Non-conforming materials to be returned to a supplier and non-conforming products to be reworked or scrapped are held in quarantine.

The company's products are packaged to provide sufficient protection against degradation caused through storage, transportation and the elements. They are clearly and concisely labelled to describe the product contained within the packaging.

None of the company's products are of an intrinsically perishable nature. Should this situation ever arise, appropriate procedures would be implemented to ensure the preservation and segregation of any perishable product.

4.6 Control of monitoring and measuring equipment

Procedures are in place to calibrate and maintain inspection, measurement and test equipment used by the company to demonstrate the conformance of its products to specified requirements [EQP 07].

The company does not at present use test software in any form.

Records are kept, within the Technical Department, of all measuring equipment and calibration checks and their traceability to reference gauges, national standards or test houses. These records verify that the measuring equipments are functionally adequate and are available to the company's customers upon request.

Procedures are in place for the control of inspection, measuring and test equipment which include:

- Ensuring that the correct equipment is used for a given measurement.
- Calibrating all measurement equipment on a planned periodic basis.
- Defining the calibration process for each item of measurement equipment.
- The identification of equipment's calibration status.
- The maintenance of equipment's calibration records.
- Assessment of previous results when equipment is found to be out of calibration.
- Ensuring that measurements take place under environmental conditions that do not affect the accuracy of the measurement.
- Ensuring calibration equipment is handled, stored or kept in conditions that do not compromise the accuracy of measurements.
- Safeguarding calibration equipment, where possible, from unauthorised adjustments.

5. Measurement, analysis and improvement

5.1 General

The company has put in place procedures designed to:

- Ensure product conformity.
- Ensure that the quality management system conforms to the requirements of BS EN ISO 9001:2015.
- Continuously improve the quality management system.

5.2 Monitoring and measurement

5.2.1 Customer satisfaction (See section 2.2).

5.2.2 Internal audit

Internal audits are conducted to an annual programme established by the Technical Manager in accordance with the requirements of the internal audit procedure. The purpose of the audits is:

- To ensure that the company quality management system conforms to the requirements of BS EN ISO 9001:2015.
- To monitor all working areas and processes to ensure that the company's procedures and work instructions are effective and are being correctly implemented.
- To initiate corrective and preventive actions where they are not, and to verify that these corrective and preventive actions are effective.

The Technical Manager retains records of audit and their results for a minimum of two years.

5.2.3 Monitoring and measurement of processes

Procedures are in place to ensure the effective monitoring of the quality management system processes. The type and extent of monitoring or measurement of processes shall be determined and appropriate in relation to their impact on conformity of product requirements and the effectiveness of the quality management system.

The company has established procedures enabling recorded process statistics to be analysed and tabulated, these include:

- Analysis of process inspections and tests.
- Re-work and scrap.
- Customer complaints/feedback of information.

5.2.4 Monitoring and measurement of product

Inspection, test and record requirements for all the company's products are documented in test and inspection procedures, and in quality plans, if applicable.

The first item produced against a works order requirement is normally fully inspected prior to commencement of either a manufacturing run or of assembly.

Manufactured items are inspected against drawings and data sheets and assemblies against samples, work instructions and drawings.

Each operator is responsible for self-checking. Supervision is responsible for random checking and ensuring that the operator carries out their specified checks.

On completion of assembly, each product item is 100% tested and inspected to ensure that it fully meets the specified requirement in accordance with the company's technical reference sheets and the purchaser's requirement.

Audits are carried out as further assurance of conformity of product and to verify the effectiveness of the company's inspection and test procedures.

The works order documentation, together with any special instructions is used to compile a permanent test record of the product, where applicable, and is retained by the Production Control Department.

Test results, (numeric performance data), are retained for products, wherever specified in procedures.

The test and inspection authority for the release of conforming product to the customer is indicated using numbered inspection stamps.

5.3 Control of nonconforming product

Procedures are in operation designed to control products that fail to comply with the specified requirements. They include:

- Special identification.
- Removal from work areas and segregation.
- Quarantine.
- Rework or scrap.
- Re-inspection.
- Customer complaints.
- Documentation and records.

Concession procedures are in place, although in practice they are very rarely used, defining the authority for the review and disposition of non-conforming product.

The company, as a point of principle, does not seek concessions from its customers.

Products returned by the company's customers for service / repair are fully inspected and tested in accordance with the appropriate company test and inspection procedure prior to release back to the customer.
If non-conforming items are delivered to a customer, a risk assessment of the likely consequences will be carried out and, if necessary, the items will be repaired and/or recalled and replaced.

5.4 Analysis of data

The company does not employ statistical techniques to analyse product non-conformities. The company's products are all 100% tested and inspected prior to release.

The Technical Manager continuously monitors records of non-conforming items and instigates corrective or preventive action, where necessary.

These records include:

- Goods inwards return notes to suppliers.
- Process test and inspection data.
- Final test and inspection data.
- Customer returns and complaints.

Fault analysis reports and details of corrective and preventive actions taken are presented to and discussed at management review meetings.

5.5 Improvement

5.5.1 Continual improvement

The management strives to continually improve the quality management system through the processes of:

- Quality objectives.
- Internal audits and actions arising.
- Management review meetings and actions arising.

5.5.2 Corrective action

A corrective action procedure [EQP 22] is in place that includes:

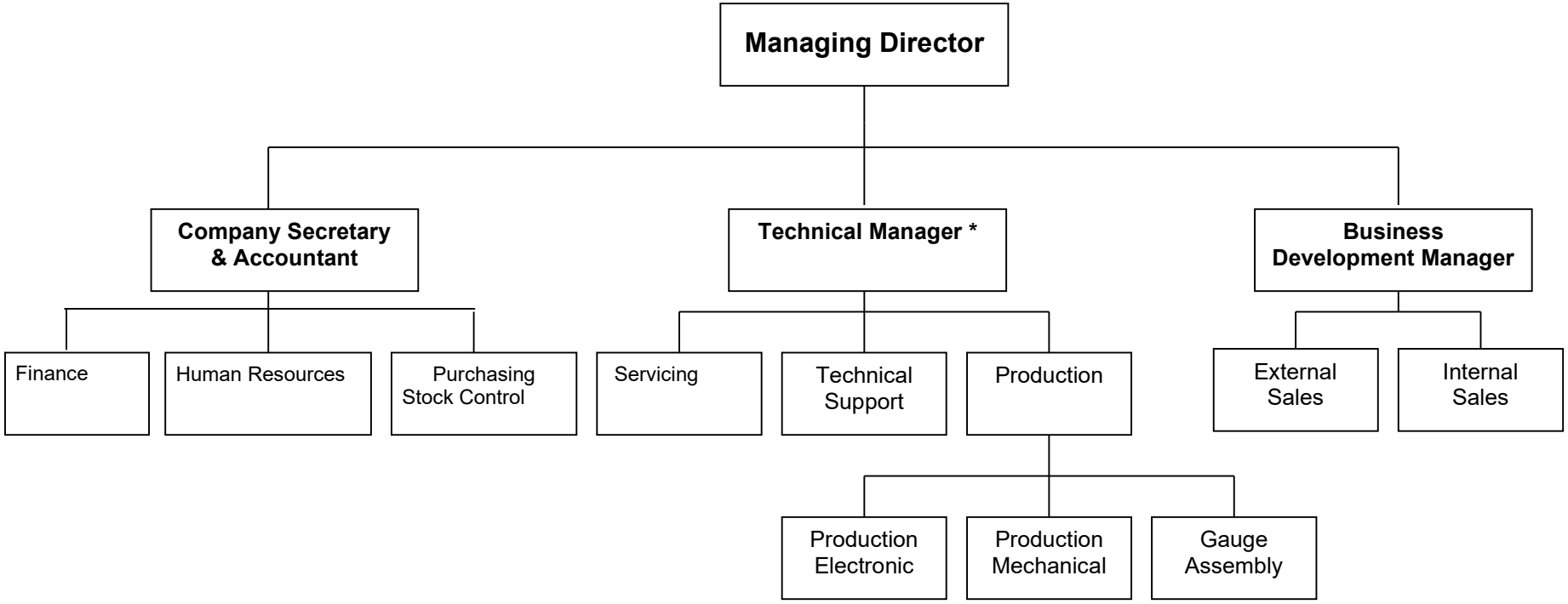
- The investigation of customer complaints and product failures.
- The investigation and recording of the causes of non-conformities in the company's products or in its quality management system.
- Ensuring that the appropriate corrective actions are taken to eliminate non-conformities.
- Ensuring that the corrective actions taken are effective.

5.5.3 Preventive action

A preventive action procedure [EQP 23] is in place that includes:

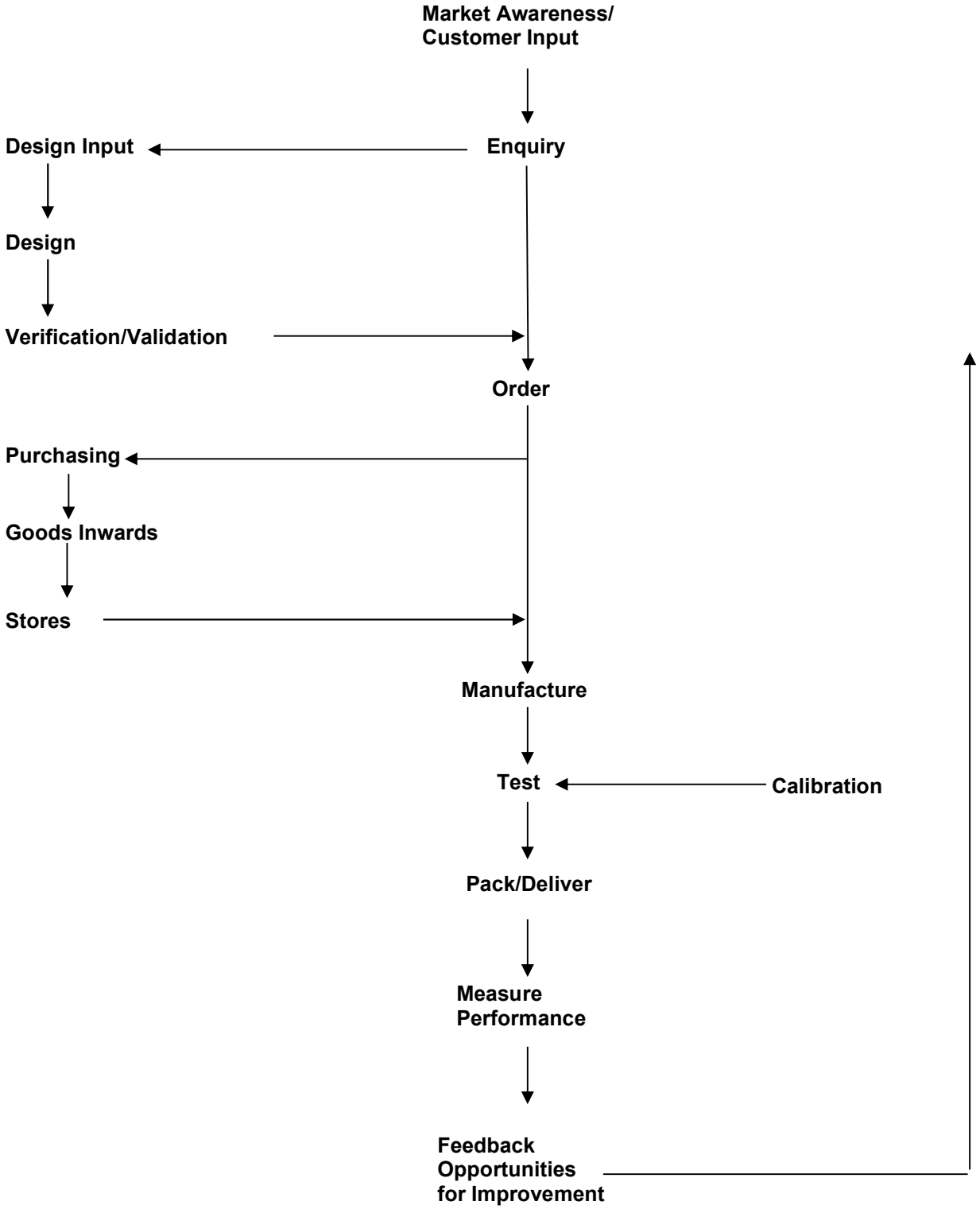
- Using recorded quality management system documentation, (e.g. fault record sheets, audit reports etc.) to identify and remove the potential causes of non-conformities.
- Establishing the action required to be taken initiate programs of preventive action.
- Taking preventive action and establishing controls to ensure its effectiveness. Management review analysis of preventive taken.

Appendix A: Company Organisation Chart



* Also Management Representative

Appendix B: Quality Management System Process Map



Appendix C: Index of Company Procedures

EQP 01	Document Control Procedure
EQP 02	Sales Office Procedure
EQP 03A	Design Control Procedure
EQP 03B	Drawing Control Procedure
EQP 04	Production Planning Procedure
EQP 05	Manufacturing and Assembly Procedure
EQP 06	Inspection and Test Procedure
EQP 07	Measuring and Test Equipment Control Procedure
EQP 08	Goods Inwards and Despatch Procedure
EQP 09	Storage Procedure
EQP 10	Non-conforming Items Procedure
EQP 11	Purchasing Procedure
EQP 12	Supplier Assessment Procedure
EQP 13	Internal Audit Procedure
EQP 14	Technical & Quality Records Storage & Maintenance Procedure
EQP 15	Recruitment & Training Procedure
EQP 16	Computer System Control and Storage Procedure
EQP 17	Concession Procedure
EQP 18	Product Returns/Servicing
EQP 19	Quality Manual and Procedures Manual Control Procedure
EQP 20	ATEX Certified Products Procedure OBSOLETE - ATEX Manufacture Ceased.
EQP 21	Customer Complaint Procedure
EQP 22	Corrective Action Procedure
EQP 23	Preventive Action Procedure
EQP 24	Continual Improvement
EQP 25	Internal Audits
EQP 26	Management Review

Revision List

Issue 1	15/04/02 First issue of manual.
Issue 2	23/10/03 Organisation Chart updated.
Issue 3	12/12/03 Responsibilities section updated.
Issue 4	05/05/04 M Tennick removed from organization chart on his retirement.
Issue 5	07.06.05 Changes to roles & Responsibilities Quality Assurance Manager now Technical Manager.
Issue 6	17.06.08 Changes to Responsibilities
Issue 7	06.07.10 Quality Manual transition updates to comply with BS EN ISO 9001:2008. Responsibilities and authorities updated. Appendix A: Company organisation chart updated. Appendix C: Index of Company Procedures re-instated and updated. Section 5.3 ATEX certified product and BS EN 13980:2002 recall requirements added.
Issue 8	07/07/11 Quality Manual transition updates to comply with BS EN ISO 9001:2008. Responsibilities and authorities updated. Appendix A: Company organisation chart updated. Appendix C: Index of Company Procedures re-instated and updated. Section 5.3 ATEX certified product and BS EN 13980:2002 recall requirements added
Issue 9	04/06/14 References to standard 13980 changed to BS ISO/IEC 80079-34:2011
Issue 10	14/06/17 BS EN ISO 9001:2008 references replaced with BS EN ISO 9001:2015 after certification.
Issue 11	25/06/18 ATEX Production Ceased, References to BS ISO/IEC80079-34:2011 removed.
Issue 12	15/07/24 Removed S. Kazimierczak (Company Secretary), Added N. Grobety (External Accountant/Business Support).