FACTORY PRODUCTION CONTROL **(FPC)**

BSEN14351

WINDOWS & EXTERNAL PEDESTRIAN DOORSETS

CONTROLLED DOCUMENT
NUMBER: 001

Revision History

Issue No	Date	Page	Description of change
001	01/02/10	All	Initial Issue of Complete Manual

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Section (QM = Quality Manual)

QM 11.0 CONTINUOUS SURVEILLANCE, ASSESSMENT AND APPROVAL OF FPC

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1.0 GENERAL (Reference 7.3.1 BSEN14351)

1.1 Introduction

The following Quality Manual is in accordance with BSEN14351 (Windows and External Pedestrian Doorsets), Factory Production Control (FPC) reference 7.3 of BSEN14351 and in accordance with the European Construction Products Directive (CPD).

The full details of the standard can be found within the standard BEN14351 within the company's 'Controlled Documents Manual' number 002.

From this point, the following terms are as per the following:

System Supplier (Smarts Systems Limited)	– Profile designer and manufacturer.
Manufacturer and or Fabricator	– Window and external pedestrian doorset assembler of system supplier profile.

The Manufacturer will receive cascaded Initial Type Testing Results (ITT) from the System Supplier in accordance with BSEN14351 reference 7.2.
All further type testing of profile and or hardware must be discussed between the Manufacturer and System Supplier in order for the system suppliers guarantee to be valid.

In addition, full compliance of the following FPC must be maintained for the guarantee from the system supplier to be maintained.

The reference numbers of this quality manual are in line with BSEN14351 and are indicated in red against this quality manual.

It is the responsibility of the manufacturer to maintain this FPC and all information received from the System Supplier. In addition, it is also the responsibility of the manufacturer to ensure all information from the system supplier is current. This information includes:

- Current Fabrication Manuals.
- Current Wallcharts.
- Current Manufacturing procedures issued from System Supplier.
- Current ITT results of System Supplier products.

1.2 Quality Policy Statement

It is the Policy of the Company to provide high quality, value for money products a nd services on time in accordance with agreed customer requirements. This will be in line with the Company's organisational goals and expectations that revolve around the requirements of our customers.

The achievement of this Policy calls for a systematic and disciplined approach by all employees in all activities associated with the requirements of our customer's.

The Company's quality objective is to ensure all Aluminium Windows and External Pedestrian Doorsets manufactured meet the requirements of BSEN14351.

It is the responsibility of each employee to adhere to the Company's Policies and Operating Procedures at all times and to suggest methods of improving the way in which the Company operates where they can be identified. The Managing Director to investigate the merits of all suggestions and to communicate the outcome to all employees.

It is the Managing Directors belief, that in applying this policy, it will enable the Company to meet the requirements of our customers.

Signed: _____

Position: _____

Date: 01/02/10

<u>This page to be signed with copies displayed on Company notice Boards</u>

1.2.1 Quality Policy

It is the Policy of the Company to provide high quality, value for money products and services on time in accordance with agreed customer requirements. This will be in line with the Company's organisational goals and expectations that revolve around the requirements of our customers.

The achievement of this Policy calls for a systematic an d disciplined approach by all employees in all activities associated with the requirements of our customer's.

The Company's quality objective is to ensure all Windows and External Pedestrian Doorsets manufactured meet the requirements of BSEN14351.

It is the responsibility of each employee to adhere to the Company's Policies and Operating Procedures at all times and to suggest methods of improving the way in which the Company operates where they can be identified.
The Managing Director undertakes to inve stigate the merits of all suggestions and to communicate the outcome to all employees.

To enable this objective to be achieved, the Managing Director is introducing a quality management system into its operations via the 'Work Station Descriptions', with the firm intention of it being assessed against an internal audit conducted via the Management Representative – Form 022.

In addition to this, quality objectives will be established and implemented. These will be reviewed during each Management Review meeting to determine their effectiveness.

All Company personnel know of this policy and commitment and work hard to ensure that it is properly implemented and maintained in all areas of the business operations.

1.2.2 Quality Objectives

The Company's quality objective is to maintain and enhance its reputation by continuing to give the customer's complete satisfaction with the quality of its products and service. Specific objectives will be discussed, introduced and reviewed at the M anagement Review meetings. Initial Objectives include conformance against BSEN14351 for Aluminium Windows and External Pedestrian Doorsets.

To ensure that this objective is achieved, employees at all levels will be trained in all aspects of the work that they may be called up to carry out. This training will include health and safety training on the safe and proper use of tools, machines and equipment.

Wherever possible, and practicable, all advancements and improvements in materials, manufacturing processes and techniques and technology will be introduced at the earliest practicable time.

1.2.3 Quality Management System Planning

The Company's Quality Manual is its quality plan, which ensures that the quality management system meets the requirements of BSEN14351 and the Company's quality objectives.

1.3 Manuals

The Company's quality management system is formally documented in the, Quality Manual, Controlled Documents Manual, Forms Manual and System Supplier Fabrication Manual for Aluminium (Smart Systems). All of the afore mentioned Manuals being approved by the Managing Director.

The Quality Manual gives a general overview of the quality management system and can be issued as either a Controlled Document for internal use within the Company or as an Uncontrolled Document for use as marketing/promotional material. All Uncontrolled Documents supplied in this manner will be correct and up to date at the time of issue but they will not necessarily be updated afterwards.

The Company is not involved in any type of innovative design of its products.

The Quality Manual is the Company's Quality Plan and gives full details of the working of the quality management system including the quality objectives and requirements for the product, e.g. product conformity to a national or international standard, and sample copies of all relevant documents. It is therefore confidential to the Company and can only be seen at the Company's premises except where necessary for the purpose of being assessed to the standard or at the discretion of the Directors.

Where a more detailed and documented quality plan is a specific requirement of a customer's order, the provision of such a plan will be considered as part of the product realization process.

Controlled copies of all manuals have been issued to designated people as detailed on the Distribution List. The Certification Copy is the one submitted to, and is reviewed by, the third part certification body, if required.

The Working Copy is the one in regular use and can be used for noting any amendments or revisions that may be required from time to time, prior to the revision being formally implemented.

Controlled copies of sections of the manuals can be issued to other employees.

1.4 Control of Documents

When a revision to the system has been identified, either as a planned change or as a result of an audit, the Management Representative revises the relevant sections of the manuals as appropriate, with the revision being marked by means of a vertical line in the right hand margin. The revision number and date are added to the footer of each page in the section. The revision number is a simple consecutive one and is used for all the sections revised at the same time, irrespective of any previous revisions to them. Brief details are entered onto the Revision Record at the front of the manual.

The Director then reviews and approves the revision, signing each page as confirmation.

The revised sections are then copied and issued to each designated holder of a manual. Where controlled copies of sections have been issued to other personnel, revisions to these sections are formally issued to the named holder.

The replaced sections from the Certification Copy are marked as “Obsolete” and retained in the Obsolete Data file. All other copies will be retrieved and destroyed.

1.4.1 Control of Records

Unless stated elsewhere, all records are retained for a minimum of the guarantee of the Window and or External Pedestrian Doorsets, after which they may be destroyed at the Company’s discretion.

Quotations, customer orders and completed Works Order sheets are fastened together and retained for ten years following which they can be destroyed.

All quality management system related records and documents e.g. internal quality audit reports, assessment or surveillance reports, management review meeting minutes, et cetera are retained in the Quality Records file for a minimum of three years.

1.5 Standards

A file copy of BSEN14351 is held in the Controlled Documents Manual and dated on receipt. It will be marked as “1 of X” to denote how many copies are held by the Company.

Where a document is not in regular use but is held for reference purposes, it will be marked as “Reference Only”. It is the responsibility of the user to ensure that this copy is of a current revision status.

All copies of controlled document status will be revised, amended or replaced as and when the document is revised or replaced. If one is deleted or re-issued, the file copy will be replaced, re-dated, marked as “Obsolete” and retained in the Obsolete Data file. All other copies will be retrieved and destroyed.

The status of all standards and specifications will be verified during the first Management Review of each year, generally by reference to the issuing authority.

1.6 Scope of Manual

The Managing Director of ??? Limited who manufactures Windows and External Pedestrian Doorsets at ??? has prepared this Quality Manual.

This Quality Manual must be read in conjunction with the following 'ControlledDocuments:

- Controlled Documents Manual.
- Forms Manual.
- System Designer Fabrication Manual.

The operation of the procedures described in this manual and the required records of testing and inspection shall provide the required evidence to external third party authorities that ??? Ltd are capable of manufacturing, consistently, windows that meet the requirements of industry standards.

All members of staff are to comply with all instruction contained in this manual. If the need to change this manual, in a ny way is necessary, is it the responsibility of the Management Representative. All persons are entitled and encouraged to suggest improvements, additions and revisions to the manual.

The company holds a controlled copy within the Directors office to audi t from. All other copies are issued as 'non controlled' documents but are correct at time of printing.

- Copy No. 1 - Held on Computer

The Quality Manual is maintained by the Management Representative (Factory Manager) and authorised for use by the Managi ng Director. The Quality manual will be reviewed annually during the management review.

Authorised for use by: _____

Position: _____

Date: 01/02/10

Issue No: 1

1.7 Company Documents

All Company generated documents and forms are given an issue number and/or issue date. A controlled copy is held on file.

When a document is revised or amended it will be given a new issue number and date. The controlled copy of the original will be marked as “Obsolete” and retained in the Obsolete Data file. A new controlled copy will then be held on file.

1.8 Product Literature

The Company holds a small quantity of each supplier’s literature for the products used in the manufacture of Aluminium Windows, External Pedestrian Doorsets and Conservatories. One copy marked as a Controlled Document and retained on file. When the Company is notified of a change to the literature, copies of the new version will be obtained and all remaining old copies will be destroyed.

The old controlled copy will be marked as “Obsolete” or similar and retained for reference. A new copy will be marked as a Controlled Document and filed.

1.9 Responsibility, Authority and Communication

1.9.1 Responsibility and Authority

The Managing Director is ultimately responsible for all actions within the Company that affect its performance and operatio ns. Where necessary, responsibility and authority for specific actions or areas of business can be delegated to another person, with all employees being advised of this.

1.9.2 Communication

Please see the organisation chart in this Quality Manual reference 2.2.

Such is the size and structure of the Company, the Managing Director is in direct contact with the employees at all times. This includes discussing and reporting on the effectiveness and development of the quality management system. In addition to this company information, ‘Work Station Descriptions’, memos etc are placed on notice boards.

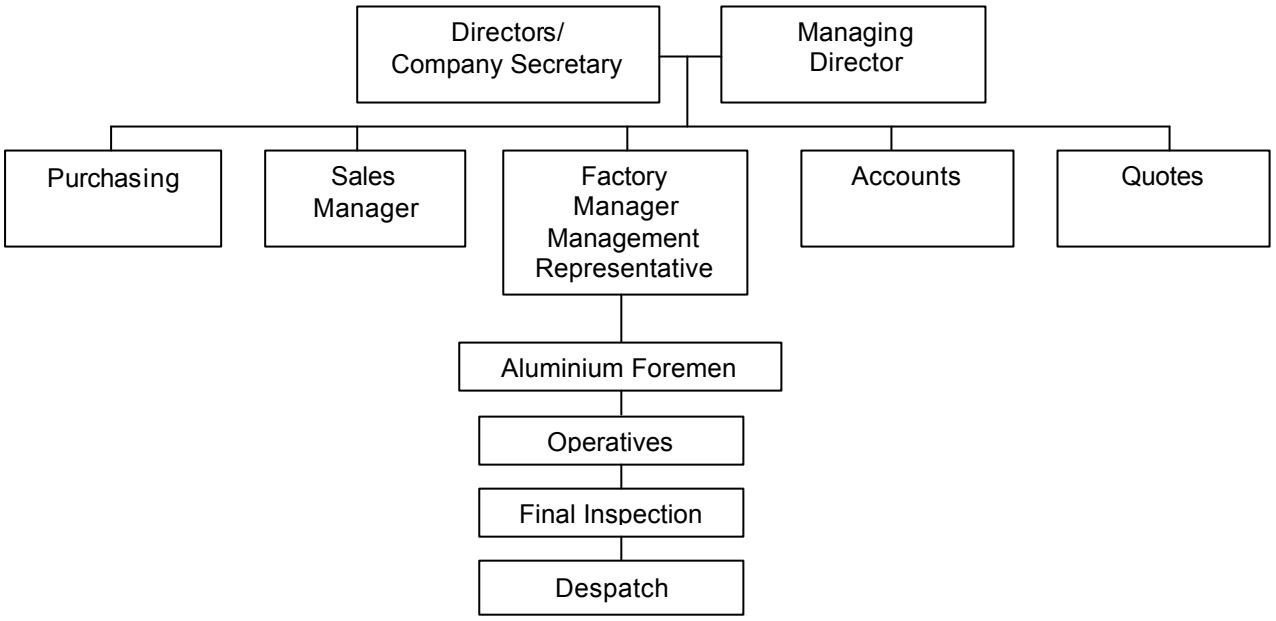
QM 2 QUALITY MANAGEMENT SYSTEM

2.1 Introduction

This section describes how the quality management system is organised and operated to meet the requirements of the BSEN14351 standard.

2.2 PERSONNEL (Reference 7.3.2 - BSEN14351)

The company is structured as shown below:



2.2.1 Training

All employees will be identified with their signatures and initials against Form 011. Their individual Employee Record will be against Form 010 and a training Matrix Form 009 will summarise all training records, which will be displayed in the office and shop floor.

2.3 Management Commitment

The Managing Director is committed to ensuring that the Company's quality management system is developed and implemented correctly and that every means will be employed to improve its ongoing effectiveness.

To assist in this, all employees have been advised of the need to meet all necessary requirements including those of the customer and the applicable legal or regulatory requirements.

2.3.1 Responsibilities

Managing Director is responsible for:

Day to day running of??? Limited
Manufacturing and Production.
Day to dayresponsibilities of running a business.
Ultimate responsibility for quality.
Health and safety for the entire company.
Training of staff on quality.
Man management of Operatives.
Machinery Maintenance.
Invoices
General financial business

The Directors are responsible to the Managing Director for:

Generating External Sales Enquires
Controlling Accurate Quotation and Order Details
Receiving & Controlling Customers at the Trade Counter
Accurate input of Customer Orders into Computer for Production
Purchasing of Products.
Checking of all Orders.
Company Secretary.

Factory Manager is Responsible to the Managing Director for:

Manufacturing
Check Final Product is correct against original customer order
Stock Controller
Goods Inwards
Delivering Product on time
Final Inspection.
Despatch

The Foreman is Responsible to the Director for:

Production.
Operators in accordance with 'Work Station Descriptions'.
Machinery.
Stock Level Monitoring.
Final Inspection.
Despatch

The Production Operatives are responsible to the Foreman and Directors for:

Ensuring windows are manufactured in accordance with the Quality Manual and related documents.
Making constructive suggestions for improvement of the Quality Manual and related documents.

2.4 Management Representative

The Factory Manager has been appointed as the Company's Management Representative (see QM 2.3). He therefore has the day-to-day control of the quality management system, ensuring that it is correctly and efficiently implemented, maintained and improved wherever possible and practicable.

In addition to ensuring that the customers' requirements are known within the Company, the Management Representative also liases with all outside parties in respect of the quality management system.

In his absence, The Director takes on these responsibilities.

3.0 EQUIPMENT (Reference 7.3.3 - BSEN14351)

3.1 Fixed Equipment

All fixed equipment will be specified and recorded on Form 008, the records held by the Management Representative. All operators are trained on general maintenance of machinery and reminded via their respective 'Work Station', see appendix.
Written instruction on the use of equipment is available. The instruction may take the form of manufacturer's handbooks and/or leaflets.

The handling and storage of equipment is such that the accuracy and fitness for use are maintained.

Damaged or defective equipment is withdrawn from use immediately the condition is observed. The item shall be labelled 'DO NOT USE'.

After the equipment has been repaired it shall not be used until it has been inspected to ensure that it is working correctly again.

3.2 Measuring Tapes

Individual Measuring Tape records are kept and maintained by the Management Representative via Form 007. The Measuring Tapes ar e calibrated on a monthly basis and kept within the tolerance of +/ - 0.5mm against a calibrated steel rule, which is calibrated every five years. Measuring tapes are also calibrated if dropped or appear to be damaged.
Each Measuring Tape will have the uni que employee initials and number etched on as a permanent marker.

3.3 Steel Rule

The steel rule is kept in the office of the Management representative and the calibration certificate is kept within the controlled documents manual 002.

4.0 RAW MATERIALS AND COMPONENTS (Reference 7.3.4 - BSEN14351)

4.1 Material Specification

The manufacturer will hold cascaded records from the System Supplier as per BSEN14351 reference 7.2. of all tested products. A Vendor (Supplier) list will be generated via Form 005, against which only purchases will be made.
Vendors will be assessed on an annual basis during a Management Review

4.2 Purchase Orders

All suppliers are selected and approved by themselves being certificated to ISO 9001: 2000 or similar, by being au dited by, or on behalf of, the Company, on the basis of the Company's knowledge of them or by any combination of these.

All current suppliers that have any bearing on product or service quality have been issued with a standard questionnaire requesting ful details of their current quality status.

From the replies, where received, and/or the Company's knowledge of their past performance, each supplier has been assessed and, if approved, assigned a quality rating as follows.

Rating	Product Description
A	Quality critical materials from a Supplier with UKAS ISO 9001:2000 accreditation
B	Quality critical materials from a Supplier without UKAS ISO 9001:2000 accreditation
C	Quality critical materials from a supplier without ISO 9001:2000 accreditation
D	Non Quality Critical material supplier
E	Supplier whose past performance has been unsatisfactory. Products must not be purchased from such a supplier
F	Material required for experimental or trail purposes only

Rating	Quality Description
1	Good – no fail ure rate on materials supplied
2	Fair – occasional failure rate on materials supplied
3	Poor – frequent failure rate on materials supplied

Current Product Rating		Current Quality Rating	

Products will **not** be purchased from a supplier with a E or 3 rating.

The Management Representative maintains an ongoing evaluation of all approved suppliers. If a non -conformity is found in either a product or a service, a Non -conformity Report will be raised (see QM 6.3.2.). A copy may be sent to the supplier r equesting details of the corrective action to be taken by them.

These nonconformities and supplier assessment/evaluations will be discussed at the next Management Review (see QM 3.3.6).

4.2.3 Purchasing Information

Purchase orders for critical compo nents are prepared Director and sent by the Office Administrator.

4.3 Verification of Purchased Product

Should either the Company or the customer require to verify products at the supplier's premises, this requirement will be clearly stated on the pur chase order or amendment to the order or notified to the supplier at the earliest possible time.

On receipt at the Company's premises, all purchased products are checked against the details on the supplier's delivery document and the Company's Purchase Or der for type, quantity, size etc. Where the supplier is now or has previously supplied incorrect or faulty products, a closer, detailed inspection will be carried out.

When satisfied that the products are correct, the delivery document will be signed and dated by the person carrying out the inspection.

Where a product is found to be incorrect in any way, including the quantity supplied, the Director will be informed immediately for action (see QM 6.3.2) and a Non - conformity Report made out (Form 001).

4.4 Goods Inwards

Trained operatives will receive Goods from suppliers, checking Supplier Delivery Note against a copy of Purchase Order as per 'Work Station', see appendix. Should the Supplier Delivery not meet Purchase Order, a Non Conformance – Form 001 will be raised and the author of the Purchase Order informed.

4.5 Stores

All components entered into stores system will be into a clear defined area. A stock control system will alert the business when components are running low to avoid incorrect raw materials and components used.

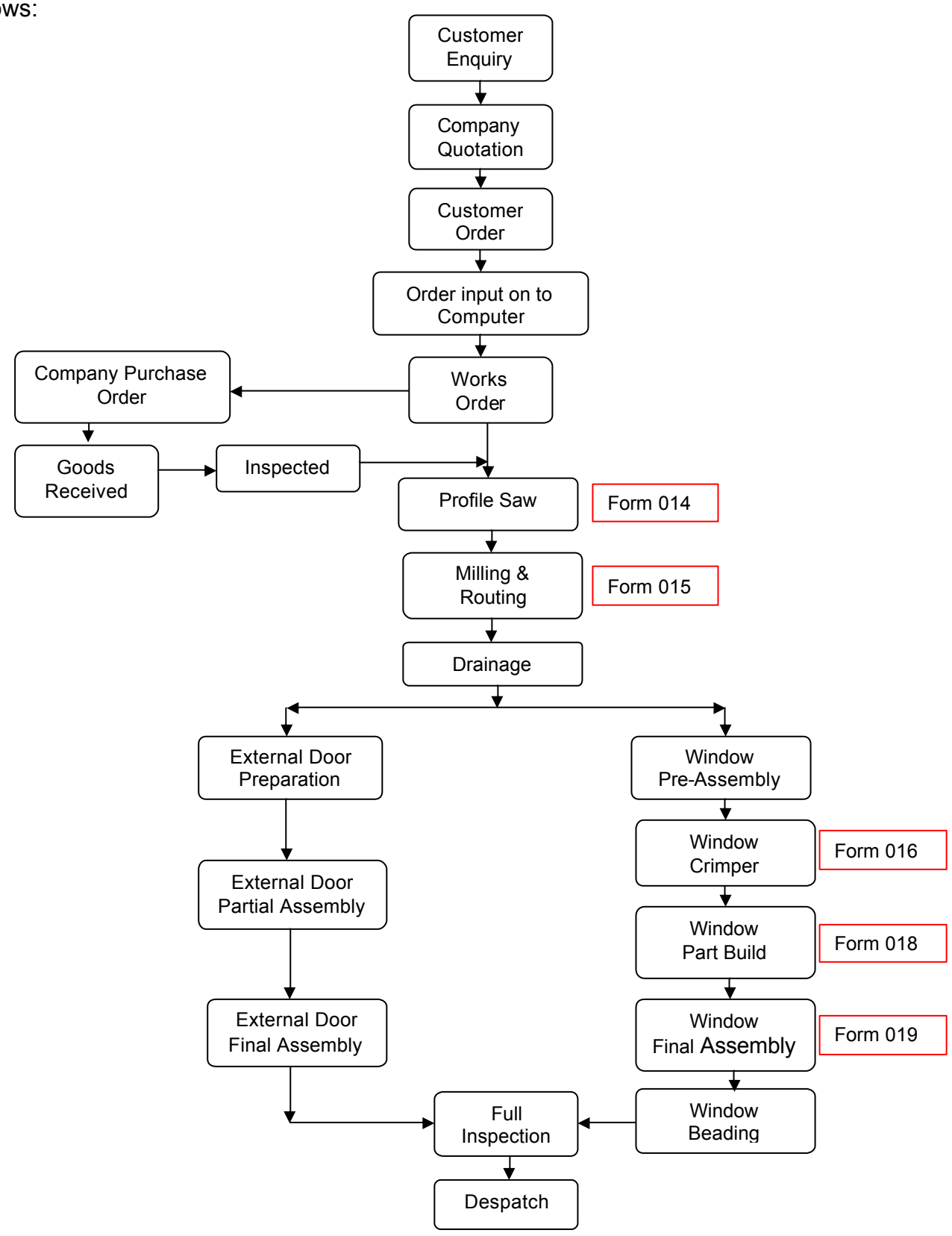
4.6 Screws

All screws on shop floor are clearly identified within individual coded boxes and are used as per System Supplier Technical Manual.
Only screws identified by System Supplier as approved to be used.

5.0 PRODUCTION PROCESS (Reference 7.3.5 - BSEN14351)

5.1 General

The Company manufactures Aluminium Windows, External Pedestrian Doorsets and conservatories. The process, which follow within Work Station Descriptions can be shown as follows:



5.2 Work Station – (Reference Appendix)

Each part of the process is documented via 'Work station Descriptions' as per the appendix. Trained operators complete Forms as per 'Work Station Descriptions' and follow the Non Conformity process should any Non Conformity arise as described within each Work Station.

5.3 Inspection Forms

All specified Forms against each Work Station are to be completed on a daily basis. Instruction of each form route can be found using Form 030 Form -Work Station Index.

6.0 PODUCTION TESTING AND EVALUATION (Reference 7.3.6 - BSEN14351)

6.1 Inspection

Inspection points have been introduced at every part of the process as described in 'Work Station Descriptions' (see appendix). If any part of the process identifies a fault, a Non Conformity is raised as per section 8 of this quality manual.

6.2 Final Inspection

Trained operatives at Final Inspection carry out checks as per 'Work Station Description'. If failure established, non conforming product removed from production and quarantine procedure followed (see reference 8.0 of this quality manual)

7.0 TRACEABILITY AND MARKING (Reference 7.3.7 – BSEN14351)

7.1 Profile Marking

Every piece of profile cut will be marked as per Cutting List instruction.
Each 'Work Station' (see appendix) will check that every piece of profile has been marked as per cutting list.

7.2 Finished Product Marking - Pass

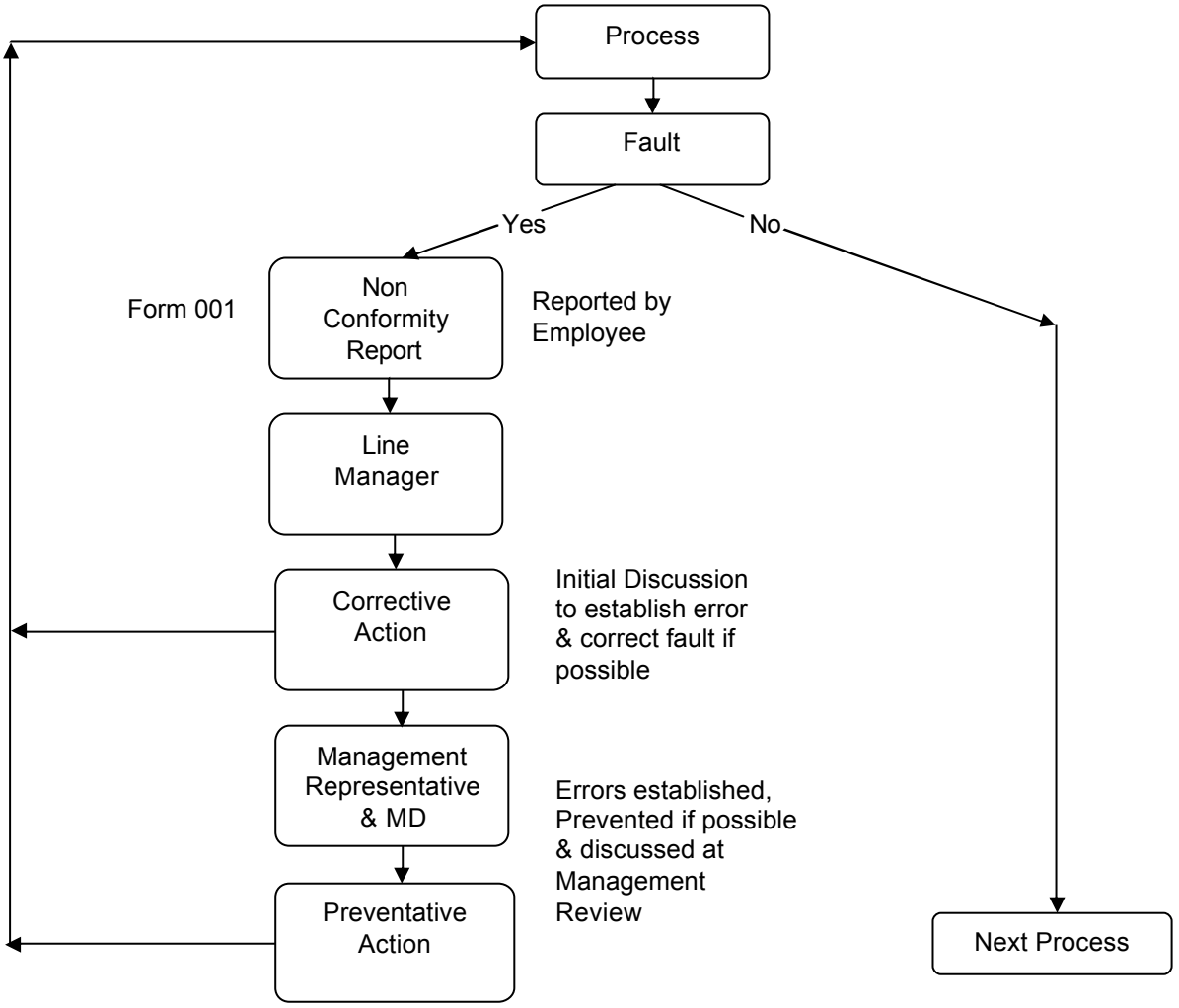
Upon completion of Final Inspection, a Green Sticker will be applied on the end of the product. In addition, clear labelling and conformance against BSEN14351 will either appear as a label on the product or with the paperwork to travel with the finished product to the customer. The finished product is then placed ready for despatch.

7.3 Finished Product Marking - Fail

Should the product fail, a Red Sticker is applied as per Quarantine procedure as per section 8.0 of this quality manual.

8.0 NON CONFORMING PRODUCT (Reference 7.3.8 – BSEN14351)

8.1 Non Conforming Product Procedure



When a purchased product is found to be incorrect to type, size etc such that is cannot be used, it will be marked as non -conforming, reject or similar and segregated to prevent its use. The Factory Manager will decide on its disposal, which could be return to the supplier or scrapping and placing in the rubbish skip. A Non Conformity Report will be completed.

The Non Conformity Report – Form 001 will be maintained on file for a minimum of three years and will be used as part of a supplier's assessment.

8.2 Quarantine

Any products which fail inspection points and cannot be reworked are d

9.0 CORRECTIVE ACTION (Reference 7.3.9 – BSEN14351)

9.1 Corrective Action Procedure

Where a non conforming product is found during the manufacturing process, the cause of the problem will be determined and recorded on a Non conformity Report.

The need for corrective action to eliminate the possibi lity of a recurrence of the non - conformity will be assessed. Where it is determined that such action required, the appropriate corrective action will be established and, if practicable and cost effective, introduced at the earliest opportunity.

Details of these actions will be entered onto the Non Conformity Report – Form 001. The process will be monitored to confirm the effectiveness of the actions taken. If necessary, further corrective actions will be considered.

When a customer makes a written comp laint to the Company it is dealt with by the Director who enters the details onto a Customer Complaint Record - Form 003. The Director will then investigate the complaint, visiting the site if necessary and, if agreeing that the complaint is valid, determ ine and implement the appropriate corrective actions. These will be entered onto the report.

The problem will be monitored to ensure that the corrective actions were effective. When the complaint has been resolved to the customer's reasonable satisfacti on, the Customer Complaint Record will be dated and signed as completed.

All Customer Complaint Records will be retained for a minimum period of two years.

Customer complaints will be reviewed during each Management Review to determine whether or not there is a trend in them.

9.2 Preventative Action

During each Management Review meeting, the potential for problems to occur will be assessed. Such areas as the production facilities and equipment, employee levels and capabilities, current and future order levels, suppliers etc will be considered.

Where it is thought that there is a possibility that a problem could arise, the Managing Director, Director and Management Representative will assess the need to institute preventive actions immediately or at some future date.

A record of the assessment and the proposed actions, if any, will be entered into the minutes of the meeting. These will be reviewed at the next meeting to determine whether or not the actions were necessary and effective.

10.0 INITIAL INSPECTION OF FACTORY AND FPC (Reference 7.4 – BSEN14351)

10.1 Provision of Resources

The Managing Director has determined and supplied the resources needed to develop, implement, maintain and improve the quality management system, thereby ensuring that the customers' requirements are met satisfactorily. These resources are reviewed periodically.

10.1.1 Human Resources

All employees are capable of performing more than one job function. Therefore, in someone's absence, another person who has sh own that they can do the work satisfactorily can carry out their duties.

The Company currently employs personnel who are skilled or have been trained in the type of work that they will be expected to carry out. New employees will be thoroughly trained by an experienced person on all operations that they may be required to carry out.

When the Company has a new or different type of machine, or production process, all employees who may be required to operate the machine or carry out the process will be given the appropriate training by a person who is experienced in operating the machine or process. They will then be tested to ensure that the training has been assimilated and is effective. Where necessary, additional training will be given until the employee is fully competent to operate the machine or perform the process.

All current employees are fully aware of the relevance of their work and how this contributes to the quality of the products and to customer satisfaction.
This will be explained to all new employees on appointment.

Employees have a Training Record (see Form 010) on which there is a summary of their previous, relevant experience, training or qualifications. A brief description of further training will be added as and when required. The em ployee and instructor where practicable, will sign the record.

Each new employee will have a Training Record started. The Company's quality policy and quality management system will be explained to them.

Each employee who may be required to drive on the Company's behalf either in a Company vehicle, a hired vehicle or their own, is required to submit their current driving licence for examination. A copy will be taken and attached to their Training Record. The driver then submits it annually for checking . The Management Representative will date and sign the copy to confirm the check. If a licence has any penalty points on it, the driver may be required to submit it more frequently.

10.2 Infrastructure

The Company has provided office and manufa cturing facilities that reflect the size of the Company and the type and complexity of the products made.

The workshop has five main areas with natural and artificial lighting. The areas have temporary heating facilities. Storage facilities are as detail ed in QM 5.3.5.5. The Office area has natural lighting and adequate artificial lighting.

All production machines are specifically designed and made for the purpose for which they are used. They are serviced and maintained generally in accordance with the manufacturer's recommendations.

The computer has a specially designed program, supplied by specialist software designers, which are used to produce the Works Order forms/cutting Lists.

All off cuts and waste from the Aluminium profiles are placed in w aste bins. All other waste is put into a skip. The Aluminium waste is then re -cycled, with the other waste being removed from site by the skip hire company.
All employees are supplied with any necessary protective equipment, which they are instructed to use.

10.3 Work Environment

The work environment is maintained in an acceptable a condition as is possible within the limitations imposed by the age, type, size and shape of the buildings.

Natural and artificial light and heating are good in both the wor kshop and the office. When required, opening the doors, windows and the use of electric fans, provides adequate ventilation.

Intermittent noise is generated when the compressor operates and when the saws are being used. Ear defenders are worn at all time s by staff while in the factory. Visitors are encouraged to wear ear defenders.

10.4 Product Realization

10.4.1 Introduction

This section details the procedure involved in the manufacture of the products to meet the customer's requirements.

10.4.2 Responsibilities

The Managing Director, Director and Management Representative are responsible for ensuring that all employees comply with this procedure as appropriate.

10.4.3 Planning of Product Realization

All products are manufactured in accor dance with Fabrication manuals and applicable standards. The Quality System is internally a udited periodically, to confirm their ongoing conformity to this standard.

All materials are purchased from approved suppliers to a detailed purchase order and/or specification.

10.5 Customer Related Processes

10.5.1 Determination of Requirements Related to the Product

When the Company receives an enquiry, a written quotation will be prepared and sent to the customer, if requested.

With all enquiries, the Manag ing Director determines whether or not any regulatory requirements have to be complied with, e.g. toughened glass for Insulating Glass Units.

10.5.2 Review of Requirements Related to the Product

When a customer places a written order in response to a quotation, the details of the order, if any, will be reviewed and checked against the quotation. If these are satisfactory, the order will be processed as detailed in the Works Manual.

Should an order be received for which the Company has not previously quoted, the Managing Director will review it in detail to ensure that the Company has the capability to complete the order as required.
If satisfied, the order will be processed as detailed in the Works Manual.

Where a customer notifies the Company of a change to the order requirements the new requirements will be checked to ensure that the Company can comply with them. Any Company documents relating to the order will be amended as necessary.

10.6 Customer Communication

When a customer requires deta ils of products, the Director will discuss these with the customer and, if required, will supply samples or literature which shows the types of products available.
Enquiries, contracts and order handling are dealt with as detailed above.
The Director, whether of a positive or negative nature, deals with all customer feedback. Letters expressing satisfaction with the work carried out or with the product will be acknowledged by the Director. The letter will be held on file for possible future use as a testimonial. These letters can be used as a means of assessing customer satisfaction.

Where a customer suggests a variation in how the product is made, packaged, delivered or installed, this variation will be evaluated and the customer advised of the result.

Any negative feedback will be reviewed and investigated and, if necessary or appropriate, the customer will be contacted to discuss and resolve any issues. Customer complaints will be dealt with.

10.7 Production and Service Provision

10.7.1 Control of Production and Service Provision

Technical manuals from the Aluminium System company (Smart Systems Limited) describe the materials and product during manufacture and on completion, where relevant, and give performance characteristics.

They are availa ble for use in the workshop when required. When not being used, the Management Representative holds them.

There is an Instruction Manual, or similar, for each of the machines describing how to set up, operate, service and maintain them. If a machine does not have a

Instruction Manual, operatives are trained in it use prior to being able to operate it.

All monitoring and measuring devices used are controlled as detailed below at QM 5.3.6. During manufacture, the products are cut and assembled as detail ed on the Works Order sheet and in accordance with the System Suppliers Fabrication Manual.

10.7.2 Validation of processes for Production and Service Provision

The manufacture of All Aluminium Products can be validated against all Calibrated Equipment a nd fully trained staff.
The monitoring and measuring instruments on the machine are checked and calibrated as detailed in the Works Manual.

10.8 Customer Property

There are no instances where a customer would supply products for inclusion in, or use with, the Company's products.

Company staff can visit customers' property to carry out Surveys. In these cases, all reasonable care will be taken to ensure that the property is not damaged in any way. Should an instance occur where damage is caused, the customer will be advised at the earliest opportunity.

10.9 Preservation of Product

The Company takes all precautions to preserve the products at all stages.

Following satisfactory receiving inspection the product components are stored as required. All products are retained in their delivery packaging where practicable, until required for use.

Finished products, are stocked vertically as per system Suppliers recommendations.

All products during manufacturing including glass are handled manually. The y are handled such that no damage is caused to them with special attention being given to the Glass and Aluminium Products.

10.10 Monitoring and Measurement of Processes

The Managing Director, Director and the Management Representative are in direct and regular contact with all Company personnel during working hours, therefore they carry out non-recorded, informal monitoring of all work activities on an ongoing basis.
The ability of the manufacturing process to achieve satisfactory finished products is monitored as detailed in the Works Manuals.

Any non-conformity in the products is dealt with as in QM 6.3.2 below.

10.10.1 Monitoring and Measurement of Product

All products purchased for the manufacture of the windows, doors and conservatories are inspected on receipt against the details on the supplier's delivery document and the Company's purchase order if necessary.

Where the delivery is correct, the person carrying out the inspection will sign and date the document before passing it to the office. The products will then be put into stock.

If there is a discrepancy in the delivery, e.g. wrong product or quantity, the Directors and the Management Representative will be advised, and the appropriate action taken, informing the supplier accordingly. Where it is a wrong or incorrectly made product, it will be identified as non-conforming until a decision on its disposal has been made (see 6.3.2. below).

During fabrication, the units are dimensionally checked. Each of the dimensions given on the Works Order are checked to confirm compliance with the order requirements within the tolerances given of ± 1.5mm of the work size. In addition, the diagonals are also measured to confirm that the unit is square. There is an allowable tolerance of 4mm difference between these dimensions.

The operative who carried out the specific Quality Critical operation will initial the Works Order as required.

Where a critical dimension exceeds the tolerance, the unit will be scrapped and broken up and a new unit made up immediately. Details of the nonconformity will be entered onto the back of the relevant Works Order, which will be dated and signed by the person carrying out the check. The Works Order/cutting list will be retained in the office for a minimum of six months or until the next Management Review meeting (see QM 11.2).

On completion of a unit, it is inspected to ensure that the profile is clean and free from damage, that all hinges, locks and stays operate correctly in all positions and that the sash overlaps are as detailed in the profile supplier's Technical Manual.

The Works Order is initialled under "Final Inspection" in confirmation.

11.0 CONTINUOUS SURVEILLANCE, ASSESSMENT AND APPROVAL OF FPC (REFERENCE 7.5 – BSEN14351)

11.1 Internal Audit (Reference 7.5 BSEN14351)

On an annual basis the Management Representative, or nominee, audits the quality management system in general accordance with the Internal Quality Audit Programme using Form 029 such that each element of the system is checked.

Objective evidence of compliance of the working practices to the requirements of the international standard and the Quality Manual will be recorded and detailed in the audit report.

Where non-conformity is found, a Non-Conformity Report Form 001 will be made out, giving details of the non-conformity. The person responsible for the area being audited, having discussed and agreed the nonconformity, signs the Non-Conformity Report. The Management Representative or the person responsible for the area in question retains the original of the NCR and the auditor retains a copy.

The steps necessary to correct the non-conformity are determined and then entered onto the original of the NCR with a date given for the completion of these actions. The Managing Director then signs this. Where required, any measures to prevent a recurrence of the nonconformity are established and detailed on the form. This is also approved and signed by the Managing Director.

If a non-conformity is not considered serious, e.g. one which would not affect product or service quality, an observation will be made in the audit report with a recommendation for action to be taken. If the non-conformity is found at a later audit, an official Non Conformity Report may be issued.

The Director or Nominee ensures that the responses to the NCR are correct and workable and that they have been implemented satisfactorily. The completed original forms are then returned to the auditor, who, if satisfied, closes them out. He retains a copy for future use, e.g. for a follow up check at the next schedule audit or, when the non-conformity was of a serious nature, for an early check to verify the effectiveness of the corrective action, and returns the originals to the Management Representative.

On completion of the audit, the auditor submits a signed and dated audit report with a summary of the NCR's raised and the observations detailed, to the Directors for approval and action.

The internal quality audit report will be discussed at the next Management Review (see QM 11.2).
Someone independent of the area being audited carries out the internal audits. Where necessary, an outside source can be used.

11.2 Management Review

11.2.1 Review Input

Once a year, the Managing Director, Management Repres entative and Director review the Company's quality management system to ensure that it is still effective in satisfying the Company's stated quality policy and objectives, and in addition, identifying where these could be improved.

At the meeting, the rep orts from the Internal Quality Audits, Customer Complaints or commendations, production process reports and product conformity testing results and non-conformity reports raised since the last Management Review are all examined to see if there are any indic ations that there is a problem in the system. This can be shown by type or number of non-conformities.

In addition, the meeting will investigate any changes that could affect the quality management system and any recommendations for its improvement.

11.2.2 Review Output

A written record is taken of the meeting showing action responsibilities and the completion date for those actions.

Also recorded in these minutes will be details of how and where improvements in the effectiveness of the quality management system can be made and where product and/or product performance can be improved to meet customer requirements.

Any additional resource needs will also be examined.

11.3 Analysis and Improvement

11.3.1 Introduction

This procedure has been devel oped to ensure that the products, service and quality management system are monitored, measured and analysed to show that they conform to requirements and that they are continually improved where practicable.

The use of statistical techniques is limited t o counting and recording the number of non - conformities and customer complaints and the analysis of Works Order sheets to verify product availability for delivery.

11.3.2 Responsibility

The Management Representative is responsible for ensuring that thi s procedure is adhered to.

11.3.3 Analysis of Data

All correspondence from a customer relating to the performance of the Company or to the Company's products, including complaints, will be discussed and analysed during each Management Review. In addition, any information regarding quotations that have not resulted in firm orders being placed will also be examined and, if possible, the reason for the lost order will be established, the potential customer being approached for a reason if this is considered appropriate.

The Works Order sheets with details of non-conforming products will be examined and analysed during each Management Review to determine whether or not there is a trend in the cause of the non-conformities. Where a trend is established, practical and practicable cost effective preventive actions will be examined and implemented at the earliest opportunity.

The Management Representative maintains an ongoing evaluation of all relevant suppliers via Vendor Rating Form 005, recording details of supplies of non-conforming products unacceptable late deliveries etc. These details will be discussed during each Management Review. If a supplier falls below the standard expected, the Managing Director or Nominee will contact the supplier to discuss and, if possible, resolve any problem.

11.4 Improvement

11.4.1 Continual Improvement

The Company is striving to improve the quality of the products and service supplied to its customers.

This may involve the obtaining of larger, more suitable premises. This is a long term project.

Where the analysis of date indicates where improvements in the quality management system could/should be introduced, these will be determined and actioned at the earliest opportunity.

11.5 Monitoring and Measurement

11.5.1 Customer Satisfaction

The majority of the Company's products are supplied for local companies who place regular but relatively small orders at any one time. The continued placing of these orders is a major indication of the customer's ongoing satisfaction with the quality of the Company's products and service.

Letters of satisfaction and the Work sheets from both domestic and trade customers are held on file. They, together with any other information, will be used as a means of assessing customer satisfaction during a Management Review meeting (see QM 3.3.5) and may also be used as marketing/promotional material.

When a customer expresses dissatisfaction with the Company's products, performance or service in writing, this will be classed as a customer complaint and will be dealt with as in QM 6.3.5.2 below.

11.6 Customer Focus

The Managing Director shall ensure that the customer's requirements are correctly and fully determined when an order is received, contacting the customer for clari fication where necessary and that the finished products meet both these requirements and all relevant legal and regulatory requirements.

QM 7 APPENDIX

Introduction

This appendix lists the records and documents relative to the quality management system that are used by the Company.

Records and Documents

All Forms are as per 'Forms Manual – Controlled Document 004' and are recorded either in the computer (Computer Generated Forms) or filed as per the manufacturer manuals system see 'Scope of Manual'.

Master copies of the above documents are held on computer by theDirector.

Work Station Descriptions

The attached 'Work Station Descriptions' to be laminated and adhered to position close to relevant 'Work Station'.

FACTORY PRODUCTION CONTROL **(FPC)**

Workstation Descriptions

Work Station Descriptions

Goods Inwards

Check for the following, if any errors occur, complete 'Non Conformity Form 001' and report to Factory Manager or Director.

- Office Administrator checks Purchase Order against Supplier Delivery Note.
- Check Supplier Delivery Note for the following:
  - Quantity.
  - Correct Standards.
  - Delivery Date.
  - As per Purchase Orders.
  - Batch Numbers.
  - Supplier Purchase Order Number.

- Director and or Foreman informed of any discrepancies.
- Report Delivery to Line Manager

Forms – All Completed Forms returned to Factory Manager or Director

- Purchase Order Form 012
- Non Conformity Form 001
- Supplier Delivery Note Form 022

Inspection

- Glass
  - Dimensions.
  - Qty.
  - Visual appearance – Scratches, Sealant, Georgian Bar Alignment.

- Profile
  - Batch Numbers – Visual appearance of packaging and quantity.

- Hardware
  - Qtys
  - Standards,
  - Description

Check Delivery Book at 4pm each day and Report any outstanding Purchase Orders to author of Order immediately.

Date: 01/02/10

Work Station Descriptions

Profile Saw

Check for the following, if any errors occur, complete 'Non Conformity Form 001' and report to Supervisor.

- Ensure correct Profile/saw support block is used where applicable.
- Visually inspect Profile before Cutting for Damage etc.
- Check Material codes against Cutting List.
- Check profile matches profile chart.
- Check cutting list for:
    - Length.
    - Angle.
    - Qty.
- Tolerances of +/- 0.5mm on length.
- Check saw blocks are correct for profile being cut
- Check angle accuracy as per 'Smart Systems Limited' wall chart.
- After first cut of the New Profile, measure with tape & record
- Each Cut piece placed in Job Bin.
- Sign Cutting List after every job completion.
- Completed job moved onto next Work Station as per Cutting List in bins.

Forms – Attach to Board

- Cutting List — Form 020
- Non Conformity Forms — Form 001 - When completed, pass to Factory Mgr.
- Profile First off record — Form 014 - Pass to Factory Mgr at End of Week.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

Ensure all saw support blocks are correct.
Profile Condition.
Blade Condition & renewal/change date.
Ensure Cutting Fluid levels are correct in container and check Stock level of Cutting Fluid.
Check material for burrs.

Ensure Saw Bed is clean before cutting NEW bar length.

Date: 01/02/10

Work Station Descriptions

Milling & Routing

- Ensure Paperwork is complete.
- Check profile code matches wall chart.
- Check profile for burrs and general condition of profile.
- Profile put into m/c & mill as per Smart Systems Limited Fabrication Manual.
- Visually check for burrs and general running of m/c.
- Sign Cutting List upon Job Completion.
- Return completed profile into bins and passed onto next workstation as per Cutting List.

Forms – attach to Board

- Cutting List — Form 020 - When completed, attach to Board 2.
- Non Conformity Forms — Form 001 - When completed, pass to Factory Mgr.
- Mill First off record — Form 015 - Pass to Factory Manager at End of Week.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

Ensure machine is clean and clear before insertion of Profile
Condition of received profile.
Condition of Blades, Cleanliness and general running of m/c.
When a blade is changed, check for:

- Transom to Frame.
- Transom to Transom.
- Burrs.

Ensure Machine is clean at the start of each shift

Date: 01/02/10

Work Station Descriptions

Drainage

- Check paperwork is complete.
- Check qty's and codes are as per cutting list.
- Check condition of profile.
- Refer to Drainage Booklet.
- Drill slot hole as per 'Smart Systems Limited' instructions.
- Check for burrs.
- Sign Cutting List.
- Completed profile returned to bin and passed onto next workstation.

Forms – Attach to Board

- Cutting List — Form 020 - When completed, attach to Board 2.
- Non Conformity Forms — Form 001 - When completed, pass to Factory Mgr.
- Mill First off record — Form 014 - Pass to Factory Mgr at End of Week

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

Check condition of Blade and m/c in general.
Check condition of profile.
Ensure machine is clear and clean before inserting profile.

Ensure Machine is clean at the start of each shift

Date: 01/02/10

Work Station Descriptions

Conventional Window – Pre Assembly

- Check paperwork is complete.
- Check qty's and codes are as per cutting list.
- Check condition of profile, Drainage & Routing slots for burrs.
- Obtain Gasket as per cutting List.
- Check dates on Gasket Buckets.
- Check Gasket against 'Gasket Chart'.
- Gasket & Bubble Seal, then inserted into Extrusion as per 'Smart Systems Limited' Fabrication Manual.
- Cut and mitred to section.
- Ensure Gasket and seal are flush, cut with a sharp blade.
- Sign Cutting List.
- Completed profile returned to bin and passed onto next workstation.

Forms – Attach to Board

- Cutting List Form 020.
- Non Conformity Forms Form 001 - When completed, pass to Factory Manager.
- Pre Assembly First off record Form 017 - Pass to Factory Manager at End of Week

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

Condition of Profile.
Gasket Stock Level.

Date: 01/02/10

Work Station Descriptions

Crimper Bench

- Check paperwork is complete.
- Check qty's and codes are as per cutting list.
- Check Cleats as per cutting List against Cleat Chart.
- Ensure Smart Systems Limited Crimper Tooling as per records are in place and accessible at all times.
- Set up Crimping Machine as per the Wall Chart
- Check sample is OK and adjust Crimping machine if necessary.
- Insert Corner Cleat and Corner Chevrons.
- Silicone Cut Faces of mitre joint and wipe off excess Silicone
- Seal Mitre faces.
- Position Mitre and Crimp.
- Check strength of mitre joint (Should NOT Move), Chevrons should not rattle!! Crimp should be GAP Free and flush internally and externally.
- Sign Cutting List.
- Assembly then passed onto Next Work Station as per Cutting List.

Forms – Attach to Board

- Cutting List — Form 020.
- Non Conformity Forms — Form 001 - When completed, pass to Factory Manager.
- Crimped Assembly First off record — Form 015 - Pass to Factory Manager at Week End.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspect

- Condition of Profile, Gasket and Bubble Seal.
- Cleat Stock Levels.
- Chevron Stock Levels.
- Mitre Lines.

Date: 01/02/10

Work Station Descriptions

Conventional Window – Part Build

- Check paperwork is complete.
- Check Profile codes for 'Transoms' and 'Mullions'.
  (Check against Profile Chart on the wall).
- Use Drill Jig as per 'Tooling Chart'.
- Align and Drill accordingly as per Smart Systems Limited Fabrication manual.
- Insert Bubble Seal.
- Locate Transom/Mullion within Frame member. Ensure both inner and outer faces are flush with section when located and fix using screws as per 'Assembly Section' in Smart Systems Limited fabrication manual
- Sign Cutting List.
- Assembly then passed onto Next Work Station as per Cutting List.

Forms – Attach to Board

- Cutting List — Form 020
- Non Conformity Forms — Form 001 - When completed, pass to Factory Manager.
- Window Pre Build Record — Form 018 - Pass to Factory Manager at End of Week

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspect

- Cutting List.
- Drainage Holes.
- Routing Slots.
- Burrs.
- Stock Levels for Screws etc

Date: 01/02/10

Work Station Descriptions

Conventional Window – Final Assembly

- Check paperwork is complete.
- Visually Inspect Frame For:
    - Damage.
    - Poor Quality Assembly.
    - Gaps.
- Check Locking Mechanisms etc as per Cutting List.
- Assemble Locking Mechanisms into Vent Frame as per manual.
- Assemble Friction Stays onto Vent Sections using .
- Fit Handle as per manual
- 'Keep' locations as per manual.
- Sign Cutting List.
- Assembly then passed onto Next Work Station as per Cutting List.

Forms – Attach to Board

- Cutting List — Form 020.
- Non Conformity Forms — Form 001 - When completed, pass to Factory Manager.
- Window Final assembly Record — Form 019 - Pass to Factory Manager at End of Week

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

Monitor Stock Levels of:
- Locks.
- Handles.
- Screws.

Window Operation Checks

Check Sash Alignment through Mitres. Sash operation should be clear with no fouling

Date: 01/02/10

Work Station Descriptions

Conventional Window – Beading

- Check paperwork is complete.
- Visually Inspect Assembly For:
    - General Damage
    - Gaps in Finished Beads
- Beading completed using Measuring Stick.
- Beads as Cut as per the following:
    - Bottom - Both Ends Square.
    - Sides - Scribe Bottom, Square Top.
    - Top - Both Ends Scribe.
- Fit Beads and then remove.
- Obtain 'Captive Rubber Gasket'.
- Insert 'Captive Rubber Gasket' as per Cutting List
- Reinsert Bead and secure for Transportation.
- Attach Glazing Wedge to Window for Dispatch.
- Sign Cutting List.
- Assembly then passed onto Next Work Station as per Cutting List.

Forms – Attach to Board

- Cutting List — Form 020 - When Completed, pass to Final Inspection.
- Non Conformity Forms — Form 001 - When completed, pass to Factory Manager.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

Check Profile Condition.
Monitor Stock Levels of Beads.
Check Beads for Burrs.
Check Bead Saw Blade and date for Change.
Ensure Internal Glazing wedge is attached to window for dispatch.

Date: 01/02/10

Work Station Descriptions

Conventional Window – Full Inspection

- Check paperwork is complete.
- Check quantity of Windows and Doors
- Visually Inspect Assembly For:
    - Damage.
    - Gaps.
    - Finnish.
- Check mitre lines are true.
- Check Full Operation of Window.
- Full Dimensional Check. +/- 1.5mm.
- Check Glass, as per Cutting List on Board.
- Check Handle type and colour.
- If the Window passes, stick on **'Green Sticker'**.
- If product passes, apply Label.
- **If the Window Fails, stick on 'Red Sticker', raise Non Conformity, inform Factory Manager and place in Quarantine area.**
- Sign Cutting List.
- Assembly then passed onto Despatch Station as per Cutting List.

Forms – Attach to Board

- Cutting List — Form 020 - When completed, pass on to Despatch.
- Non Conformity Forms — Form 001 - When completed, pass to Factory Manager.

Charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Inspection

As Above

Date: 01/02/10

Work Station Descriptions

Window – Rebate Bead

- Check paperwork is complete.
- Visually Inspect Assembly For:
  - General Damage
  - Gaps in Finished Beads
- Beading completed using Measuring Stick
- Beads as Cut as per the following:
  - Top and Bottom - Both Ends Square.
  - Sides - Scribe Both Ends
- Fit Beads and then remove.
- Obtain 'Captive Rubber Bubble Seal', check Batch Number and Date.
- Insert 'Captive Rubber Bubble Seal' as per Cutting List.
- Reinsert Bead and secure with Rebate Wedge.
- Sign Cutting List.
- Assembly then passed onto Next Work Station as per Cutting List.

Forms – Attach to Board

- Cutting List — Form 020
- Non Conformity Forms — Form 001 - When completed, pass to Factory Manager.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

Check Profile Condition.
Check Beads for Burrs.
Check Bead Saw Blade and date for Change.

Monitor Stock Levels for 'Rebate Wedge'.

Date: 01/02/10

Work Station Descriptions

Entrance Door - Preparation

- Check paperwork is complete.
- Drill Pilot Holes as per 'Smart Systems Limited' Tooling Chart/Fabrication Manual' using appropriate drill jig.
- Tolerances +/- 1mm
- Check for Burrs.
- Sign 'Cutting List.
- Assembly then passed onto Next Work Station as per Cutting List.

Forms – Attach to Board

- Cutting List Form 020
- Non Conformity Forms Form 001 When completed, pass to Factory Manager.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspect

Profile Condition

Date: 01/02/10

Work Station Descriptions

Entrance Door – Partial Assembly

- Check paperwork is complete.
- Obtain 'Captive Gasket' as per cutting List & Insert.
- Assemble corners of door leaf ensuring ALL components detailed within 'Smart Systems Limited' Fabrication Manual.
- Glaze the Door at the Letter 'E' stage of assembly as per 'Smart Systems Limited' Fabrication Manual. Ensure the Glass Packers are in place at this point. Remaining Vertical Section then assembled.
- Sign 'Cutting List.
- Assembly then passed onto Next Work Station as per Cutting List.

Forms – Attach to Board

- Cutting List — Form 020
- Non Conformity Forms — Form 001 - When completed, pass to FactoryManager.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Inspection

- Monitor Captive Gasket Stock Level.

Date: 01/02/10

Work Station Descriptions

Entrance Door – Final Assembly

- Check Paperwork is complete.
- Assemble Hinge Back Plates into Frame as per'Smart Systems Limited' Fabrication Manual.
- Assemble Lock Keep Back Plates into Frame as per manual.
- Insert Woolpile Seal into Sections.
- Assemble Outer Frame Components and using Corner Cleats and Cams as shown in the Smart Systems Limited' Fabrication Manual, applying a silicone seal prior to final tightening.
- Fix Hinge to Outer Frame using the back plate and Machine Screws provided.
- Adjust hinges to final fix position and secure
- Lift door leaf onto hinges and adjust accordingly.
- Fix coverstrip throughout where necessary.
- When Complete, pass onto Final Inspection.

Forms – Attach to Board

- Cutting List — Form 020 – When complete, pass onto Final Inspection.
- Non Conformity Forms — Form 001 - When completed, pass to Factory Manager.

Wall charts

- To be determined by Manufacturer and 'Smart Systems Limited'.

Fabrication Manual

- With Bench 1

Date: 01/02/10

FACTORY PRODUCTION CONTROL **(FPC)**

Form Templates

PRODUCT OR PROCEDURE

NON-CONFORMITY REPORT

Job Number:
NCR Ref No :

Non Conformance

Date	Non Conforming Product/Procedure	Reason for Non Conformity	Raised by

Corrective Action Taken

Date	Immediate action taken to rectify product/process	Action taken by

Preventative Action Taken

Date	Long term action required to prevent reoccurrence of non-conformity	Action taken by

Managing Directors Comments

Signed	Name	Date

NON CONFORMITY REPORT INDEX

Date	NCR No	Job No	REASON	COMPLETION DATE

CUSTOMER COMPLAINT FORM

Customer	
Address	
Telephone	
Customer Contact	

CCF Number	
Date of Complaint	
Person Receiving Complaint	
Delivery/Collection Date	
Number of Units Subject to Complaint	
Job Number	

Nature of Complaint			
Action Recommended			
Authorised by			
Action Taken			
Performed by		Date	

Signed off by	

CUSTOMER **C**OMPLAINT INDEX

Date	CC No	Job No	REASON	COMPLETION DATE

VENDOR RATING FORM

Supplier Name:											
Address:											
Post Code:											
Telephone:						Fax:					
E-mail Address:											
Contact Name:											
Products Supplied:											
Ratings:	2010		2011		2012		2013		2014		2015	

Rating	Product Description
A	Quality critical products/services from a Supplier with UKAS ISO 9001:2000 accreditation
B	Quality critical products/services from a Supplier with non UKAS ISO 9001:2000 accreditation
C	Quality critical products/services from a supplier without ISO 9001:2000 accreditation
D	Non Quality Critical products/services supplier
E	Supplier whose past performance has been unsatisfactory. Products must not be purchased from such a supplier
F	ISO 9001 Proprietary Product/Service supplier YES/NO
	Literature Available YES/NO

Rating	Quality Description
1	Good – no failure rate on materials supplied
2	Fair – occasional failure rate on materials supplied
3	Poor – frequent failure rate on materials supplied

Signed:	
Dated:	

Notes

NEF No:

NEW ENQUIRY FORM

New Enquiry Taken By		Date	
New Enquiry Passed to		Date	

Customer Name			
Address			
		Post Code	

Contact Name			
Title			
Tel No:		Fax No:	
Mobile No:		Other No. :	
email			
Web Site	www.		

Products & Quantity					
Windows/Doors		Conservatory		Roofs	

Contact					
Visit		Telephone		Fax/Post	
When		Day		Time	

Comments

EMPLOYMENT RECORD FORM

Name		Employee Number	

Work Station		Competence Level											
		Training				50%				100%			
		Train	Sign	Employ	Date	Train	Sign	Employ	Date	Train	Sign	Employ	Date
Office	Management Rep												
	New Enquires												
	Service												
	Quotation												
	Order Input												
	Order Check												
	Office Admin/Fensa												
	Sales - Domestic												
	Sales - Trade												
	Sales -Commercial												
	Profile Purchasing												
	Glass Purchasing												
	Hardware Purchasing												
	Roof Purchasing												
	Accounts												
	Other - Purchasing												
	Goods Inwards												
	Dispatch												
Aluminium Fabrication													
	Qty Manual Training												
	Service Engineer												
	First Aid												
	Fork Lift Truck												
	Delivery/Driver												

EMPLOYEE SIGNATURES INDEX

NAME	NUMBER	SIGNATURE	INITIALS	DATE		
				JOINED	SIGNED	LEFT

Week Commencing Mon / /

WORK CENTRE DAILY CHECK SHEET

One Check at the Start of Each Shift

WORK CENTRE DAILY CHECK SHEET											
Date	Profile Code	Job No	Profile Length		Drainage Slot				Profile Angle		Pass/ Fail
			List	Actual +/- 0.5mm	List Length	Actual Length +/- 0.5mm	List Width	Actual Width +/- 0.5mm	List	Actual +/- 0.5°	
Mon / /											
Tues / /											
Wed / /											
Thur / /											
Fri / /											
Sat / /											
Sun / /											

If any checks fail, raise Non Conformity Form 001 immediately and inform Factory Manager

Week Commencing: / /

PROFILE CUTTING RECORD SHEET - ALUMINIUM

3 Cuts per Shift Recorded

Tolerance +/- 1mm

Date	Job Number	Profile	Cutting List Dimensions	Actual Dimensions	Pass / Fail	Signed
Mon						
/ /						
Tues						
/ /						
Wed						
/ /						
Thurs						
/ /						
Fri						
/ /						
Sat						
/ /						
Sun						
/ /						

Week Commencing: Mon / /

CRIMPED ASSEMBLY – FIRST OFF RECORD SHEET

3 Windows per shift

Date	Job Number	Assembly Description	Works Order Width	Actual Width +/- 1.5mm	Works Order Height	Actual Height +/- 1.5mm	Diagonal Width 1	Diagonal Width 2 +/- 2mm	Pass / Fail	Signed
Mon										
/ /										
Tues										
/ /										
Wed										
/ /										
Thur										
/ /										
Fri										
/ /										

WINDOW PRE-BUILD ASSEMBLY FIRST OFF RECORD SHEET

3 Windows per Shift

Date	Job Number	Outer Frame Profile Code	Transom Profile Code	Mullion Profile Code	Signed
Mon					
/ /					
Tues					
/ /					
Wed					
/ /					
Thur					
/ /					
Fri					
/ /					
Sat					
/ /					
Sun					
/ /					

Week Commencing: Mon / /

WINDOW FINAL ASSEMBLY FIRST OFF RECORD SHEET

3 Windows per Shift

Date	Job Number	Handle Code	Handle Colour	Handle Side	Locking Mechanism Code	Signed
Mon						
/ /						
Tues						
/ /						
Wed						
/ /						
Thur						
/ /						
Fri						
/ /						
Sat						
/ /						
Sun						
/ /						

INTERNAL AUDIT SCHEDULE

Subject	Reference	Full Audit
General	2.4.1	X
Manuals	2.4.2.1	X
Manuals	2.4.3.1	X
Standards	2.4.3.2	X
Company Documents	2.4.3.3	X
Product Literature	2.4.3.4	X
Control of Records	2.4.4	X
Review Input	3.3.6.1	X
Review Output	3.3.6.2	X
Human Resources	4.3.2	X
Infrastructure	4.3.3	X
Planning Realization	5.3.1	X
Product Related Requirements	5.3.2.2	X
Customer Communication	5.3.2.3	X
Purchasing Process	5.3.4.1	X
Purchase Information	5.3.4.2	X
Verification of Product Purchased	5.3.4.3	X
Control of Production	5.3.5.1	X
Validation Process	5.3.5.2	X
Traceability	5.3.5.3	X
Customer Property	5.3.5.4	X
Product Preservation	5.3.5.5	X
Control of Measuring Devices	5.3.6	X
Customer Satisfaction	6.3.2.1	X
Internal Audit	6.3.2.2	X
Monitoring of Product	6.3.2.4	X
Non Conforming Product	6.3.3	X
Analysis of Data	6.3.4	X
Continual Improvement	6.3.5.1	X
Corrective Action	6.3.5.2	X
Preventative Action	6.3.5.3	X

INTERNAL AUDIT DOCUMENT

Subject	Ref	Question	Response
General		Can customer be identified?	
Customer		Who took enquiry?	
		Personnel who took enquiry part of identified team?	
		Were forms signed?	
Company Quotation		Was enquiry generated by authorized representative?	
		Was enquiry checked by authorized representative?	
		How was quotation sent?	
		Was Quotation signed and dated?	
Customer Order		Order viewed and approved for manufacture by Authorized person?	
		Was Customer told of delivery time?	
		Was order checked against quotation for differences?	
		Was Customer Name and Reference entered onto sheet?	
		Was Order given internal reference?	
		Was Order Sheet signed?	
Input of Order into Computer		Was information entered onto computer by authorized personnel?	
		Was Customer name and reference entered correctly?	
		Was sheet signed?	

Subject	Ref	Question	Response
General	**2.4.1**	Was Computer Sheet checked against Customer Order?	
Works Order		Were all Computer Sheets printed?	
		Was Sheet Signed?	
Company Purchase Order		Was Product ordered correctly?	
		Was Purchase Order Faxed dated and signed?	
Goods Received		Was Delivery Note received?	
		Was Delivery Note checked against Purchase Order, signed and dated?	
Inspection		Are Operators Inspecting work as per their Job Description?	
		Was Final Inspection carried out by Fully trained operative?	
		Was Sheet Signed?	
Invoices		Do Invoices match original order?	
		Was Invoice available?	
Completed Customer File		Were the following together:	
		Customer Order?	
		Pink Invoice Copy	
		Signed Delivery Note?	

Subject	Ref	Question	Response
		Can all Controlled Documents be identified?	
		Can all Locations of Controlled Documents be Identified?	
Manuals	**2.4.2.1**	Can all Copies of Controlled Documents be identified?	
		Can all locations of Uncontrolled Documents be identified?	
Manuals	**2.4.3.1**	Are all pages of Quality Manual signed and updated?	
		Are all pages of Works Manual signed?	
Standards	**2.4.3.2**	Can the following Standards be found?	
		BS7412	
		BS7950	
		BS4873	
Company Documents	**2.4.3.3**	Can all Original Copies of Forms be located?	
		Do Forms currently in use match the Issue of the Original Copy	
Product Literature	**2.4.3.4**	Can Literature from each Supplier be found?	
Control Of Records	**2.4.4**	Identify historical records for:	
		Management Review	
		Audit Reports	
		Completed Orders	

Subject	Ref	Question	Response
		When was the Last Management Review?	
		Did the date Match the proposed date in the previous minutes?	
Review Input	**3.3.6.1**	When is the next Management Review Meeting?	
		Identify from the Minutes of the Previous Meetings actions to be undertaken	
		Are there actions?	
Review Output	**3.3.6.2**	Are clear actions for improvement identified?	
		Have actions been implemented?	
		Are individuals identified?	
Provision of Resources	**4.3.1**	Is there evidence sufficient funds are available?	
Human Resources	**4.3.2**	Do all current employees appear in Records?	
		Is there ongoing training?	
		Are Training Records up to date?	
		Are people operating machines, trained?	
		Are all Driving Licences Current?	
		Are there Points on any Licenses?	
Infrastructure	**4.3.3**	Are Factory Heating Records up to date?	
		Is there sufficient Lighting?	
		Are Machine maintenance records up to date?	
		Are all employees wearing personnel protective equipment?	

Subject	Ref	Question	Response
Planning Realization	**5.3.1**	Are BBA. SBD & BFRC Licences available Check all critical materials	
		are purchased from specified supplier?	
		What critical materials are in use on the shop floor?	
		Are there any non specified critical materials in Stores?	
		Check Delivery Notes from critical material suppliers for clear material descriptions?	
		Do Goods Inwards Forms show records of inspection?	
Product Related Requirements	**5.3.2.2**	Find example of Quote & Order & identify match	
		Are Order Amendments recorded?	
Customer Communication	**5.3.2.3**	Is Supplier literature available?	
		Are there records of Customer Satisfaction?	
		Are there records of Customer Complaints?	
		Are records kept of Complaint Investigations?	
Purchasing Process	**5.3.4.1**	Are all Suppliers rated?	
		When was the last rating?	
		Are there any suppliers on 2 or 3 rating?	
		Are any Non Conformities raised against Suppliers?	
		Is there evidence of Corrective or Preventative action against relevant supplier issues?	
Purchase Information	**5.3.4.2**	Are all Purchase Orders recorded accurately?	

Subject	Ref	Question	Response
Verification of Product Purchased	**5.3.4.3**	Are Customer Delivery notes signed?	
		Are there Delivery notes missing from Customer file?	
		Are all Supplier Delivery Notes signed?	
		Are there records of Delivery quantities and quality checks?	
Control of Production	**5.3.5.1**	Are Weld Head Temperatures taken daily?	
		Do Weld Tests follow Works manual?	
		Are Measuring Tapes Calibrated?	
		Are Measuring Tapes up to date?	
		Can all Measuring Tapes be found?	
		Is Steel Rule available?	
		Are all Forms specified in Works Manual completed and up to date?	
Validation Process	**5.3.5.2**	Are all work stations signed for on cutting list?	
		Are checks carried out at each work station?	
Traceability	**5.3.5.3**	Are all Profiles, Beads and Reinforcing clearly marked in Storage Racks?	
		Are Profiles and Beads stored on 1m supports?	
		Are Cut lengths individually identified?	
		Does each completed product have its own label?	
Customer Property	**5.3.5.4**	Are there Customer Property Sheets?	

Subject	Ref	Question	Response
Product Preservation	**5.3.5.5**	Inspect Finished product for signs of damage?	
Control of Measuring Devices	**5.3.6**	Can Certificates be found for Steel Rule, Temperature Probe and Factory Heating Form	
		Are Devices well maintained and stored safely?	
		Who is trained to operate Calibrations?	
Customer Satisfaction	**6.3.2.1**	See Customer Communication 5.3.2.3	
		Was the Previous Audit on Schedule?	
		Have all requirements been met?	
		How many NCR's have been raised since last Internal Audit?	
Internal Audit	**6.3.2.2**	Have all NCR's been actioned?	
		Have Preventative Measures been implemented?	
		Is there evidence of Inspection of Suppliers Goods?	
Monitoring of Product	**6.3.2.4**	Are Goods Inwards sheets signed?	
		Is there evidence of dimensional checks of product during production?	
		Does Final Inspection show product clean and fully operational?	
		Does finished product identify Pass and Fail?	
		Do Non Conformity Reports identify scrap and location?	
Non Conforming Product Control	**6.3.3**		

Subject	Ref	Question	Response
Analysis of Data	**6.3.4**	Do Management Meeting Meetings analyse Data?	
		Are actions discussed and created?	
Continual Improvement	**6.3.5.1**	Is there evidence from Analysis that actions have been made to improve Company and or Product?	
		Have all targets set in Previous minutes been met?	
		Are all Corrective Actions completed on Non Conformity Reports?	
		Are Corrective Actions discussed at Management Meetings?	
Corrective Action	**6.3.5.2**	Customer complaints dealt with at Customer Communication 5.3.2.3	
		Are Preventative Actions discussed at Management Meetings?	
Preventative Action	**6.3.5.3**	Is there evidence from minutes of meetings that Preventative Actions have been implemented?	
		What outstanding Preventative Actions are there?	

WORK STATION INDEX

Form No	Description	Work Station Issuer	Frequency	Work Station Route	Record Location
1	Non Conformance Report	Management Rep	Every Internal Fault	Employee Line Manager MD Manage Rep Manage Review	Non Conformance Folder
2	**N**on **C**onformance **R**eport Index	Management Rep	Every NCR	Manage Rep Manage Review MD Manage Review	Non Conformance Folder
3	Customer Complaint	Management Rep	Every External CC	Employee Line Manager MD Manage Rep Manage Review	Customer Complaint Folder
4	Customer Complaint Index	Management Rep	Every CC	Manage Rep Manage Review MD Manage Review	Non Conformance Folder
5	Vendor Rating Form	Management Rep	Every Critical Supplier	Manage Rep MD All Purchasers MD Manage Rep	Vendor Rating Folder
6	**N**ew **E**nquiry Form	Employee	Every New Enquiry	Employee Sales MD Manage Rep	Sales Folder
7	Measuring Tape Calibration Sheet	Management Rep	Monthly	Manage Rep Employee Manage Rep	Measuring Tape Folder
8	Equipment Data Sheet	Management Rep	Every New Machine	Manage Rep MD Manage Review Manage Rep	Quality Records
9	Training Matrix	Management Rep	All Employees & Training	Manage Rep MD Line Manager Manage Rep	Training Records
	Training	Management	All	Manage Rep	Training

WORK STATION INDEX

10	Record	Rep	Employees & Training	MD Employees Manage Rep	Records
11	Employee Signatures	Management Rep	All Employees	Manage Rep Employee Manage Rep	Training Records Folder
12	Purchase Order	Manufacturer Purchaser	Every Purchase	Purchaser Supplier Goods Inwards Accounts	Supplier Folder
13	Profile Check	Management Rep	Weekly	Manage Rep Operative Manage Rep	Manufacturing Records
14	Profile Cutting Record Sheet	Management Rep	Weekly	Manage Rep Factory Manager Manage Rep	Manufacturing Records
15	Milling & Routing First Off Record	Management Rep	Weekly	Manage Rep Factory Manager Manage Rep	Manufacturing Records
16	Crimped Assembly First Off	Management Rep	Weekly	Manage Rep Factory Manager Manage Rep	Manufacturing Records
17	Window Pre-Assembly First Off Record	Management Rep	Weekly	Manage Rep Factory Manager Manage Rep	Manufacturing Records
18	Window Pre-Build Assembly First Off	Management Rep	Weekly	Manage Rep Factory Manager Manage Rep	Manufacturing Records
19	Window Final Assembly First Off Record	Management Rep	Weekly	Manage Rep Factory Manager Manage Rep	Manufacturing Records
20	Cutting List	Order Input	Every Order	Order Input Factory Manager Operatives Final Inspection Office Admin	Customer Order Folder

WORK STATION INDEX

21	Manufacturer Delivery Note	Order Input	Every Order	Order Input Despatch Customer Office Admin	Customer Order Folder
22	Supplier Delivery Note	Every Supplier Delivery	Every Order	Supplier Goods Inwards Accounts	Supplier Folder
23					
24	Client Enquiry	CClient	Every Enquiry	Client Sales MD Manage Review	Sales Folder
25	Quotation	Sales	Every Quotation	Sales Client MD Manage Review	Sales Folder
26					
27					
28					
29	Internal Audit Document	Management Representative	Annually	Manage Rep MD Manage Review Manage Rep	Management Rep Office
30	Form to Work Station Index	Management Representative	As & When	Forms Manual	Management Rep Office
31	Form Index	Management Representative	As & When	Forms Manual	Management Rep Office