**QUALITY**

**MANUAL**

This Quality Manual has been compiled to comply with the requirements of

BS EN ISO 9001:2008.

ROTECH Fabrication Limited,

Whitemyres Avenue.

Mastrick Industrial Estate,

ABERDEEN.

AB2 6HQ

Telephone: 01224 698660

Fax: 01224 685535

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**QUALITY MANUAL CONTENT AND AMENDMENT RECORD.**

Amendments will be indicated by an asterisk adjacent to the paragraph with altered text.

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Section: QM01

1.0 MANAGEMENT RESPONSIBILITY BS EN ISO 9001:2008 Para 5. 3

1.1. Quality Policy Statement

Rotech Fabrication Limited, its management and employees is committed to achieving and maintaining the highest degree of quality in the manufacture of structural fabrications and welded pipework for onshore and offshore development and maintenance.

This is achieved through the manufacture and provision of products and services that:

* Meet our customers’ requirements
* Meet regulatory requirements pertaining to business and production activities including:
* Health & Safety Legislation
* Pressure Equipment Regulations (PER) modules d and D1
* Harmonised European standards (essential safety requirements)in support of PER
* Client specific product specifications
* Other applicable or adopted regulatory requirements as deemed appropriate by Rotech Management either on a permanent or transitory basis.
* Meet compliance criteria of non-regulatory initiatives and schemes adopted by Rotech senior management, including:
* ISO9001:2008
* Rotech Management Directives.

Such commitment is demonstrated by the establishment, maintenance, effective implementation and continued development and improvement of a quality management system that meets the requirements of BS EN ISO 9001 2008 and other criteria as stated above.

The Quality Manual has been developed to record and describe the means and methods of implementing the Company Quality Policy and is the instrument in conjunction with the supporting documentation etc. illustrated at para. 1.3 of this section of the manual of this policy.

Signed. John.MacKenzie

Managing Director

Rotech Fabrication Ltd.

Signed Dave Milne

Production Manager

Rotech Fabrication Ltd.

Signed James Howard

Q.M.R.

Rotech Fabrication Ltd.

Section: QM01

1.2 Quality Objectives

The setting of quality objectives for Rotech Fabrication Ltd is designed to support the quality policy in promoting continuous improvement in the performance of the QMS. These objectives will therefore be monitored against targets set at management meetings and reviewed on a periodic basis.

 **“Our objective is to maintain compliance with ISO 9001:2008 and other regulatory and voluntary compliance commitments prescribed in the quality policy and apply these policies to maintain and enhance company performance.”**

To achieve this objective, supporting objectives and their performance indicators will be measured, monitored and analysed. These will include:

• To improve the level of written customer feedback by 100% per quarter, to give a more accurate evaluation of ongoing performance with clients and identify any areas of improvement.

* To achieve an average tender success rate of 35% over the year. Reasons for lost bids will be monitored and recorded so as to highlight any areas to be built upon.
* To ensure tendering accuracy remains within acceptable levels. Target of no more than +/- 5%
* Modernise and upgrade facilities and management system to streamline current processes and procedures and to create a more efficient working environment for personnel to achieve product conformity.
* To improve accuracy of reporting and project documentation. Target of 95% of documentation to be compiled and submitted within four weeks of delivery.

Section: QM01

* 1. System Structure

The QMS is structured and interacts as shown diagrammatically below. With policy and objectives (and their review and amendment) dictating any changes.

Quality

Manual

Policy

Objectives

Quality Procedures

Work Instructions

Documents, Forms etc.

Core

Processes

Sections within QM

Figure 1 Rotech Fabrication Ltd Management System structure

Processes, procedures and work instructions will be provided to a level driven by Rotech compliance commitments (policy) and employee competence. Individual job specifications establish the basic training, experience and qualifications required of Rotech personnel in order to fulfil their contracted responsibilities. These levels of competence generally comply with the industry norms expected of skilled and semi-skilled tradesmen.”Section: QM01

* 1. Rotech Fabrication Organisation

Rotech Fabrication Ltd is an autonomous business unit within Rotech Holdings. It does however use the corporate organisation for functions such as accounting. .

Rotech Fabrication

Safety Officer

Paul Stewart

Managing

Director

J.MacKenzie

Quality Management Representative

James Howard

Production Manager

David Milne

DCC

Elaine Duncan

Workshop

Supervisor

N.Shand

Dimensional

Controller

M.Russell

Estimator

Jake Reid

Chargehands

Stores/Materials

S. Edmond

John Murphy

QC

Jim.Robb

gordon

Materials

S. Edmond

Operatives

Section: QM01

1.0 MANAGEMENT RESPONSIBILITY BS EN ISO 9001:2008 Para 5.

1.5. Responsibility and Authority.

The specific responsibilities and authority throughout the company are detailed below and in the core processes by the convention detailed on each flow map.

Managing Director

* Definition of Quality Policy.
* Delegate authority and responsibility to the Quality Manager to ensure continued management, verification and performance of the company Quality System.
* Appoint a management representative with the authority, responsibility, qualifications and

experience for ensuring that the quality management system is established, implemented,

maintained and verified.

* Participate at Quality Management Review Meetings.
* Review of all company operations and personnel requirements.

Quality Management Representative / Pressure Equipment Regulations – Responsible Person

* Manage QA/QC departments.
* Establish, document and communicate company quality policy and objectives.
* Preparation, maintenance and distribution of Quality Manual/Documentation.
* Preparation of Audit schedules and attendance at internal/external assessments and/or

audits.

* Management Review of the company quality system to ensure continued suitability and

effectiveness.

* To act as the authorised representative of the company who under the conditions imposed by PER requirements
* To take responsibility for equipment fabricated to PER and retain overall control throughout.

Purchasing and Production Manager

* Identify at contract review all contractual requirements and processes required to satisfy customers and client's stated specifications.
* Provision and authorisation of adequate resources for any given project including requirements for quality system establishment, verification and maintenance.
* Inter functional management of personnel involved with the quality management system for any given project.

Project Appointed Survey Manager

* Identify at contract review all contractual requirements and processes required to satisfy customers and client's stated specifications.
* Provision and authorisation of adequate resources for any given project including requirements for quality system establishment, verification and maintenance.
* Inter functional management of personnel involved with the quality management system for any given project.

QA/QC Personnel

* Participation in contract review to identify quality requirements for project.
* Ensure that the quality management system meets the requirements for the contract.

Section: QM01

* Prepare, maintain and control contract specific quality plans.
* Verify project specific quality documentation is implemented and maintained.
* Respond and report to the Production/Quality Manager all relative quality system matters.

1.6 Management Review.

The maintenance and monitoring of this system, including the control of outsourced processes (primarily NDT and painting) affecting product conformity, is the responsibility of the QHSE Manager in liaison with the Management Team and Directors. The techniques utilised will include a programme of audit and review activities combined with appropriate process measures and analysis of results.

The Managing Director is accountable for the provision of adequate resources to support the operation, maintenance and monitoring of all aspects of the system. This adequacy shall be ensured through regular interaction with directors and managers and through review activities at Management Review meetings. The agenda of review meetings will include the reporting of regular monitoring activities and their output (in the form of minutes produced) shall drive the actions necessary to achieve agreed objectives regarding performance and continual improvement.

The Company will hold a review of the Quality Manual on at least an annual basis.

This review will be carried out by the Quality Manager and will be attended by the Managing Director, Production Manager and any other personnel with executive responsibility to ensure that the system is suitable and effective in satisfying the requirements of the standard and the Company Quality Policy.

Section: QM02

2.0 QUALITY SYSTEM BS EN ISO 9001:2008 Para 4.1.

This Quality Manual and associated documents describes the company policy of ROTECH Fabrication Ltd., to ensure the provision of services and products to customer requirements in conformance with the appropriate standards and good working practices.

The Quality System includes the preparation, documentation and control of procedures and instructions in accordance with the requirements of BS EN ISO 9001 2008 and the implementation of these procedures and instructions by suitably trained and qualified staff.

The Quality System comprises:

* Company Quality Manual including Quality Policy Statement, objectives, core processes, Quality Procedures, forms for recording satisfactory completion of work, reports and audits on performance, etc.

Quality procedures explain responsibilities and how specific tasks are to be performed and may include reference to operating procedures. Operating procedures/work instructions will be raised where applicable to specify activities, responsibilities, deliverables and standards necessary to meet the specified quality requirements of the contract. Training will be provided for staff where a specific need is identified, however, general competency standards are outlined at section QM01.

Where any changes to working practices are introduced through amendment or variation to a contract, all documentation changes will be carried out accordingly.

Appropriate reference documents for this type of company will be updated timeously to ensure staff guidance on any changes and to maintain good working practices.

Quality planning shall be consistent with all aspects of this documented quality system and by reference to appropriate quality procedures, methods and work instructions. Project specific quality plans will be established where this is a contract requirement and will be controlled and maintained by QM/QC personnel. The quality plan will contain reference to the quality requirements specified in the contract documents, definition of quality objectives, and the allocation of responsibilities and authority.

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Section:QM03

3.0 CONTRACT REVIEW BS EN ISO 9001:2008 Para 7.2

Contracts will be subject to review by the Production Manager, to ensure that the client's specified requirements are fully understood and can be met. The reviews will be carried out at the following stages:

Prior to acceptance by the Production Manager, production personnel and QA/QC department to ensure that the client's requirements can be satisfied and are clearly stated.

During production (where time or complexity requires) through meetings between the Production Manager and the client or his representative.

On completion of contract by the Production Manager, production personnel and QA/QC department to ensure that all documentation is complete and the order requirements have been met.

Amendments to contracts will be subject to the same review as the original contract before confirmation and acceptance by the Production Manager in consultation with the client.

Section: QM04

4.0 DESIGN CONTROL PER BS EN ISO 9001:2008 Para 7.3

There is no requirement for the Company to address this element at this point in time as this is not applicable to it's scope of operation.

For PER D1 notice from the client is required that all documentation relating to design is held by them and copies are not required to be forwarded with final job documentation package. A copy of any such agreement will be maintained on the contract file.

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Section: QM05

5.0 DOCUMENT & DATA CONTROL BS EN ISO 9001:2008 Para 4.2

The Q.M.R. will normally review and approve any supporting documentation relevant to the quality system and his signature will validate all such documentation.

A register will be maintained of the issue and amendment of the documented quality system.

Other documentation that is specific to a particular contract, such as drawings or specifications, will be subject to control by the Production/Q.M.R. or his representative and he will record the receipt and issue using the document transmittal form. (F38)

Revisions or amendments to quality documentation, where they are identified as being necessary, will be made by the Q.M.R. in conjunction with the person responsible for the operation. The revision will be produced in draft for approval by the Q.M.R. and signed by him. All such documentation will be controlled in its issue and revision and issue will be recorded.

Quality documents will carry a unique number and a revision number to facilitate their control, Certain Quality records, which are subject to change will not carry a unique number. Examples of such documents are:

* vendor approval lists
* Welder Qualification Matrix
* Weld Procedure Matrix

When a revision has been approved, the Q.M.R. will issue the document and remove the superseded version for disposal, with one copy being retained for record purposes and clearly marked as superseded.

Section: QM06

6.0 PURCHASING BS EN 9001:2008 Para 7.4.

To ensure that purchased products, goods or services give value and meet requirements every effort will be made at the purchasing stage to ensure the accuracy and clarity of the order.

Manufactured items will normally be sourced from suppliers who have demonstrated their ability to satisfy the Company's requirements and such suppliers will be recorded. This record will be made available to all personnel involved in the purchasing function and they will be responsible for reviewing and modifying this record in the light of their knowledge of the manufacturers capability.

Evaluation of Sub‑Contractors

Sub‑Contractors will be assessed on their ability to meet the requirements of the purchase order placed with them. When constraints are such that an order needs to be placed on a sub‑contractor who has no approval status then the person placing the order will be responsible for taking steps to satisfy himself of their suitability.

The Quality Manager shall at his discretion instigate line audits of suppliers on an ad hoc basis in line with the company’s continuous improvement drive, these will be recorded within the management review process.

Purchasing Data

When products, goods or services are required from a supplier the order will be raised by a competent person. The order must clearly state the specific item and identify it through a relevant catalogue number, if possible, and carry all the necessary technical information to allow the supplier to fulfil the order in a way that meets the order requirements. Where International Standard numbers are applicable these must be included together with the title and year of issue. The person raising the order will review it for accuracy and completeness before signing it.

Verification of Purchased Product

Where required, the order form will carry instructions to the supplier to provide any certification that will give evidence of the conformity to requirement of the product, goods or service to be supplied. Where specified as a contract requirement the purchase order shall make provision for the customer to have right of access to the suppliers/sub‑contractors premises for the purpose of verifying conformance to stated contract requirements. Such provision shall be complimentary to contractual documentation and the supplier shall be made aware that they may not use the verification activities as evidence of effective quality control without prior written permission by ROTECH Fabrications Ltd.

Section: QM07

7.0 CUSTOMER SUPPLIED PRODUCT BS EN ISO 9001:2008 Para 7.5.4

The provision of all free‑issue materials or product supplied by the customer for inclusion in the contract shall be subject to the same receipt, inspection, clear identification, segregation, storage control, usage control and reconciliation as for purchased product. Control of customer supplied product is described in Quality Procedure QP‑07.

Customer supplied product that is lost, damaged or unsuitable for it's intended purpose, is recorded and reported to the customer.

Acceptable customer supplied product is adequately stored and identified for the purpose for which it is intended.

Unacceptable customer supplied product is adequately stored and identified in an area dedicated for that purpose, pending return to authorised release, Such product may be subject to Non-conformance reporting as detailed at QM 13.

Section:QMO8

8.0 PRODUCT IDENTIFICATION & TRACEABILITY BS EN ISO 9001:2008 Para 7.5.3.

The Company will ensure that by uniquely numbering each contract and carrying this number on all documentation that is contract specific, traceability will be maintained at each stage of the production and manufacturing process.

This number will be allocated when the order is placed with the Company and on documentation such that it is readily related to the contract to which it refers.

Section: QM09

9.0 PRODUCT REALISATION BS EN ISO 9001:2008 Para 7.5

The Company will organise processes in such a way that all operations affecting quality shall be identified, planned and conducted to meet the client's specified requirements through the issue of systems procedures, quality plans and/or work instructions as appropriate.

The Production Manager will identify the need for particular knowledge or skills at the contract review stage and supervise the monitoring and completion of contract to customer requirements.

All personnel will be made aware of the required standards of workmanship and for compliance with International Standards and/or codes of practice which meet the contract requirements through the issue of standard procedures and/or work instructions. If necessary this will be accomplished by demonstration.

The monitoring and control of processes shall be achieved through a planned, systematic and documented quality audit.

Production equipment shall be maintained through a planned maintenance programme to ensure continuing process capability.

By reference to training records it can be noted that only suitably trained and qualified personnel are employed.

Section: QM10

10.0 INSPECTION & TESTING BS EN ISO 9001:2008 Para 7.1, 8.1, & 8.2.4.

All goods received for inclusion in the contracted works will be inspected for conformity to requirements and standards as stated on the purchase order and specifications.

In‑process inspection and test will be carried out according to the requirements of the contract placed on the company, and for compliance with the quality plan and/or regulatory documents.

The level of inspection or test will be monitored to detect any non‑conformance that if left uncorrected would jeopardise associated items and cause the area of non‑conformance to spread.

Final inspection and testing will record the ability of the product to satisfy the client's requirements and for compliance with relevant standards and specification details. It will be recorded using the standard Company forms (F92) unless otherwise specified by the client. This documentation will form part of the quality records and will be retained for a period of 10 years as required by PER.

Section: QM11

11.0 CONTROL OF INSPECTION MEASURING & TEST EQUIPMENT BS EN ISO 9001:2008 Para 7.6.

Calibration of measuring and test equipment is performed either by an approved organisation or in house in a suitable environment by competent personnel and is in accordance with a frequency schedule

A register is maintained by the Dimension Controller of all internally and externally calibrated equipment (F72, 73, 76,78). The equipment type and serial number, method and frequency of calibration are detailed.

Master equipment used for calibration purposes is periodically calibrated and certified (appropriate standards referred to on individual certificates).

All measuring and test equipment is uniquely marked. Where practical it is identified to indicate its calibration status.

If equipment is found to be out of calibration, the validity of previous inspections and test results is assessed and appropriate action taken.

Care is taken at all times to ensure that equipment and devices are handled, preserved and stored in such a manner that damage is not sustained which would render the calibration invalid.

Every endeavour is made to ensure that where possible, unauthorised adjustments will not be made.

Calibration controls are described in Quality Procedure QP‑11 1.

Section: QM12

12.0 INSPECTION & TEST STATUS BS EN ISO 9001:2008 Para 7.5.3.

A system is maintained for indication of the inspection and test status throughout production and installation of the product, which ensures that only the product that has passed the required inspections and tests is despatched, used or installed. (F92)

Inspection/test status is demonstrated through the issue of job packs and/or labels/tags, and/or inspection records, and/or designated areas, or any other adequate alternative method which may be required by the customer.

Records shall be maintained (10 years) detailing release of conforming product.

Methods of inspection and test status are described in QP‑ 12.

Section: QM13

13.0 CONTROL OF NON-CONFORMING PRODUCT. BS EN ISO 9001:2008 Para 8.3

Product, materials or goods that is found to be non‑conforming will be marked to show it as such and where possible segregated from conforming product, materials or goods to prevent inadvertent installation or use.

Where the non‑conformance arises in incoming products, materials or goods this will be identified by the Workshop Supervisor/Materials/Stores Controller, labelled, segregated (where practical) and reported to the Production Manager who will inform the supplier and raise a non‑conformance report (F18).

Non‑conformance's that arise during, the course of production work may be identified through audit of the process being carried out by either 'in house' or third party inspectors.

Non‑conformance reports and the corrective action arising from them are subject to Management review as detailed in the management review process.

Section: QM14

14.0 CORRECTIVE & PREVENTIVE ACTIONS. BS EN ISO 9001:2008 Para 8.5.2. & 8.5.3.

Correction – the immediate action required to correct a non-conformity and allow the product to progress in the normal way.

Corrective Action - the action taken (amendment of QP, work instruction, awareness training, etc.) to ensure the nonconformity does not occur again.

Preventative Action – the predictive consideration, recording and amendment (of QP, work instruction, etc.) of activities that may compromise conformity

Any non.‑conformance that is discovered will normally call for correction and a corrective action report. Corrective action taken will be monitored to ensure that it is adequate and workable having regard for the severity of the non‑conformance.

Management Review meetings will examine non‑conformance's, corrections and corrective actions and consider any preventative actions that may be spurred by such occurrence.

When a customer complaint is notified to the Company it will generate a non‑conformance report which will be originated by the Q.M.R. who will investigate the complaint and formulate correction, and any corrective action in conjunction with the department and/or person responsible.

Section: QM15

15.0 HANDLING, STORAGE, PACKAGING, PRESERVATION, etc BS EN ISO 9001:2008 Para 7.5.5.

The handling of all materials will be carried out in accordance with suppliers' instructions and good working practice in such a way as to prevent damage.

All materials will be stored in accordance with manufacturers' instructions and will be checked before use for damage or deterioration by the workshop operatives, who shall notify the Workshop Supervisor/Materials/Stores Controller of any shortfall in quality.

Completed items of contract works that require despatch will be packed in accordance with the client's stated requirements having due regard for the item for despatch and the method of transportation. Where no instructions are received from the client the Workshop Supervisor/Materials/Stores Controller will ensure that the methods to be used are adequate.

On completion of the contract works every effort will be made to prevent damage or deterioration until delivery is complete, if such is discovered this will call for an appraisal of the methods in use and amendment of any relevant work instruction. Non-conformance reporting would normally be initiated.

Section: QM16

16.0 QUALITY RECORDS. BS EN ISO 9001:2008 Para 4.2.4

All documentation which demonstrates that contracts have satisfied the requirements of the client's order will be treated as quality records and retained as objective evidence of the Company's compliance with the order. Such documentation will include purchasing records with any certificates of conformance issued by the supplier, completed test and inspection records, non‑conforming material reports and disposition records, records of corrective action and calibration records where applicable.

Reports of audits carried out internally and externally will also form part of the quality records, together with non‑conformance's arising from these audits and the corrective action taken. Records of Contract Review and Management Review Meetings will be retained as will all employee training records.

The quality records will be legible, traceable to the contracts to which they relate and will be stored in such a way as to be easily retrievable. These records will be retained for a period of 10 years .

Section: QM17

17.0 INTERNAL QUALITY AUDITS. BS EN ISO 9001:2008 Para 8.2.2.

To enable the effectiveness of the quality system to be assessed, internal audits will be carried out by the Q.M.R., external contracted specialists or a member of staff trained in audit techniques.

An audit report will be produced following the audit and where non‑conformance is identified a corrective action plan will be agreed with the person concerned with a completion date set to carry out the corrective action. The effectiveness of the corrective action will be verified following implementation.

Audit reports, non‑conformance's arising and corrective action will form part of the agenda of the Management Review Meetings to ensure that the corrective action is effective and the non-conformance's are closed out.

Section: QM18

18.0 TRAINING. BS EN ISO 9001:2008 Para 6.2.2

The Company will record the training and work experience of its personnel and ensure that only suitably trained and experienced personnel are assigned to specific tasks.

Training assessment needs will be monitored by the Q.M.R. in conjunction with Senior Management and where a need is identified it will be addressed and recorded on the appropriate employee record.

Internal quality audit may also demonstrate a need for personnel to be trained, this will be recorded in the audit report by the Q.M.R.

Training needs will also be assessed as part of the Management Review Meeting agenda.

Section: QM19

19.0 SERVICING BS EN ISO 9001:2008 Para 7.5.1.

Servicing is not applicable to this Quality Management System at this point in time, all servicing & maintenance activities are Sub-contracted out.

Section: QM20

20.0 ANALYSIS OF DATA BS EN ISO 9001:2008 Para 8.4.

The Company will record all Welding & Fabrication re-works by way of Forms 094 & 095 to establish if any trends are apparent.

M.D. Workshop Manager & Q.M.R. will review these records on an ongoing basis to ensure that any potentially harmful trends are highlighted as soon as possible.

Section: QM21

CORE PROCESSES

The core processes identified and mapped within the company are listed below;

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| SECTION | CONTENT | ISO 9000 Clause & other compliance references | Annual ReviewDate | Revision State | Text Affected |
| QCP 1 | Policy Making  |  |  |  |  |
| QCP 2 | Getting Work |  |  |  |  |
| QCP 3 | Doing Work & Product traceability |  |  |  |  |
| QCP 4 | Management Reviews |  |  |  |  |
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