QUALITY ASSURANCE MANUAL

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1. SCOPE OF APPLICATION

1.1 General

This manual establishes requirements for **FLUID FILTRATION MANUFACTURING CORPORATION** Quality Assurance System. The system has been designed to provide quality assurance coverage for all activities that are being carried out at our company, it comprises all the inspection and test necessary to substantiate product conformance as required by contract.

FLUID FILTRATION MANUFACTURING CORPORATION

VISION

Our Vision:

To be a world class design and manufacturing company for industrial and commercial filtration systems able to supply very complex filtration systems with a very short lead time.

FLUID FILTRATION MANUFACTURING CORPORATION

MISSION STATEMENT

Our Mission:

To design and manufacture advanced filtration systems characterized by a superior quality and durability, using only American made raw materials of the highest quality, performing these duties according to industry better practices and conforming all of our processes to customer and ISO requirements. Our products will be manufactured in an environment conducive to the safety of our employees and with performance designed for the benefit of our environment.

This document is "Quality Assurance Manual" (QAM), and its function is to describe our quality assurance system, its objectives and our quality policy, according to the ISO 9001:2008 standard.

FLUID FILTRATION MANUFACTURING CORPORATION was founded on December 1996; our objective is the design and manufacture of fluid filtrations systems, for Oil and Gas, Power Generation, Marine, Military and General Industries.

We are located at 102 Van Winkle Avenue, Garfield, New Jersey, 07026.

Our staff has ample experience in our industry; our plant comprises an area of around 7000 sq.ft. of office, warehouses and manufacturing space.

1.2 APLICATION

FLUID FILTRATION MANUFACTURING CORPORATION has found that all requirements from ISO 9001:2008 are applicable to its operation.

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2. NORMATIVES REFERENCES

FLUID FILTRATION MANUFACTURING CORPORATION, uses following standards/guidelines for consultation in its quality assurance system.

ISO 9000: 2005	Quality management systems – Fundamentals and vocabulary
ISO 9001: 2008	Quality management systems -- Requirements
ANSI B16.5	PIPE FLANGES AND FLANGED FITTINGS
ANSI B16.36	VALVES – FLANGED, THREADED AND WELDING END
ASME SECTION IX	QUALIFICATION STANDARD FOR WELDING AND BRAZING PROCEDURES
ASME SECTION V	NON DESTRUCTIVE EXAMINATION
ASTM E-674-12	Standard Specification for Industrial Perforated Plate and Screens (Round Opening Series)

3. TERMS AND DEFINITIONS

For the purpose of this manual all terms and definitions are those given in the ISO 9000:2005 Quality management systems – Fundamentals and vocabulary

4. QUALITY MANAGEMENT SYSTEM

4.1 General requirements

Fluid Filtration Manufacturing Corporation has identified the sequences and processes needed for the quality assurance system.

These processes and their interaction are fully documented.

4.2 Documentation requirements

The quality managements system of Fluid Filtration Manufacturing Corporation complies with the requirements of ISO-9001:2008 standards.

Quality policy and objectives are documented.

A quality assurance manual has been issued.

Documents are controlled and records are being kept.

Reference Documents

Quality Policy	Quality assurance manual.
FFM-PR01	Process map
FFM-PR02	Document control
FFM-PR03	Record Control

5. MANAGEMENT RESPONSIBILITY

5.1 Management Commitment

Fluid Filtration Manufacturing Corporation top management is committed in the development and implementation of the quality management system.

Fluid Filtration Manufacturing Corporation management will communicate the quality policy and objectives by means of:

Internal meetings

Publishing and displaying the quality policy and objectives.

Fluid Filtration Manufacturing Corporation management will conduct periodical reviews according to the established procedure.

Fluid Filtration Manufacturing Corporation management will allocate all appropriated resources according to the company business plan. The business plan is done every year and incorporates the needs of all company units based on the requirements/goals to achieve.

5.2 Customer Focus

Fluid Filtration Manufacturing Corporation management will pursue customer satisfaction. The process and ways to achieve this goal are documented in our procedures.

FFM-PR07 Process control (see reference documents)

5.3 Quality policy

In order to assure this commitment we have established the following quality policy

FLUID FILTRATION MANUFACTURING CORPORATION

QUALITY POLICY

FLUID FILTRATION MANUFACTURING CORPORATION is committed to give our customers filtration products of the highest quality, which fully meet their requirements, guaranteeing product functionality and durability. We assume this commitment based on the trust for our quality system, continuous improvement and the support from our stakeholders.

Farzad Alborzi
President
May 2014

5.4 Planning

5.4.1 Quality objectives

Fluid Filtration Manufacturing Corporation top management is committed to achieve the following quality objectives:

FLUID FILTRATION MANUFACTURING CORPORATION

QUALITY OBJECTIVES

OBJETIVE	INDICATOR	STRATEGY	GOAL
Establish and maintain a quality management system	**% of completion for implementation**	**System implementation and documentation Internal Audits**	**December 2014. Procedures manual June 2015.**
Customer Satisfaction	**% Satisfaction Level**	**After sales survey via email.**	**Above 95% customer satisfaction for 2015**
Technical specifications and procedures	**Online availability on internal computer network**	**Raw material specs Welding procedures review Material handling specs**	**December 2014**

5.4.2 Quality management system planning

Fluid Filtration Manufacturing Corporation will assure plans exist to ensure those activities and resources needed are provided to comply with quality objectives.

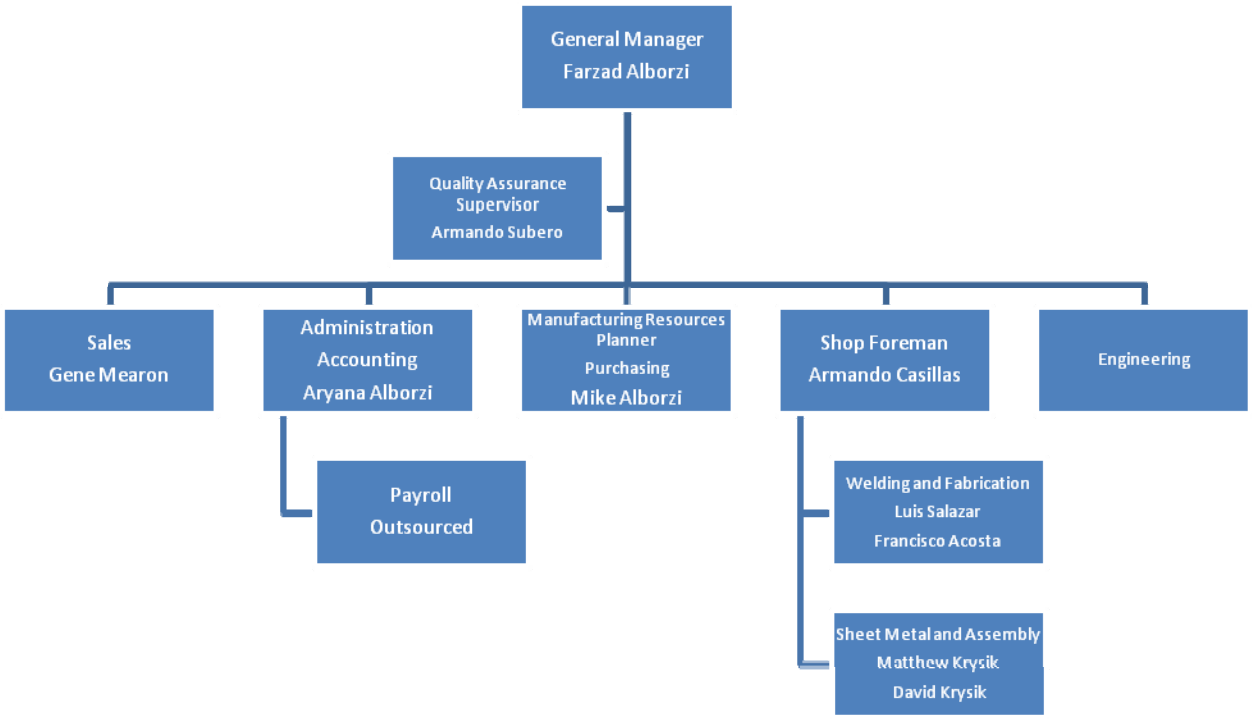
The quality assurance supervisor is responsible for maintaining the quality management system integrity when changes are made.

5.5 Responsibility, authority and communication

5.5.1 Responsibility and authority

Fluid Filtration Manufacturing Corporation has the following organizational chart which shows the authority at each level.

Each position duties and responsibilities are documented.



FLUID FILTRATION MANUFACTURING CORPORATION

ORGANIZATIONAL CHART

5.5.2 Management representative

The quality supervisor is being appointed as management representative; the authority and responsibility for the management representative are outlined in the management representative appointment letter (see reference documents).

5.5.3 Internal communication

Internal communication is based on quality management information board, that it is updated independent of the effectiveness of the quality management systems. The quality supervisor is responsible for keeping board updated.

Board should be installed in a place where it is accessible to all personnel involved in the quality management system.

5.6 Management review

Reviews are conducted periodically to ensure quality management system suitability, adequacy and effectiveness.

Reviews procedures are fully documented.

Reviews records are kept on file.

Reviews are according to FFM-PR04 (see reference documents)

Reference documents

FFM-PR03	Record control
FFM-PR04	Internal audits and reviews
FFM-PR07	Process control
Appendix 1	Quality plan
Appendix 2	Organizational Chart
Appendix 3	Appointment of management representative
Appendix 4	Job description and responsibilities
Appendix 5	Annual Business plan

6. RESOURCE MANAGEMENT

6.1 Provision of resources

Fluid Filtration Manufacturing Corporation will provide all necessary resources to fulfill the requirements of the quality management system. The resources will be provided based on the annual business plan, which is drafted and discussed at the end of the previous year, plan is submitted to Fluid Filtration Manufacturing Corporation top management, who will approve or modify proposed plan, once approved it becomes a controlled document.

6.2 Human resources

6.2.1 General

All Fluid Filtration Manufacturing Corporation personnel must be competent to ensure that tasks being performed are carried out without affecting conformity to product requirement.

All personnel will be evaluated yearly not only to review their performance but to determine needs for training and adequacy to job functions.

6.2.2 Competence, training and awareness

By means of the yearly evaluation: job competence; training; and awareness will determine actions needed in each of those areas.
The evaluations are documented, FFM-PR08 Personnel evaluation sheet (see reference documents).
Evaluations will be kept on record.
Evaluations are confidential and only top management will have unlimited access to such records.

6.3 Infraestructure

Infraestructure requirements are outlined in the business plan.

Business plan must ensure that infrastructure is adequate to achieve conformity to product requirements. Top management must inform stakeholders on deviations to business plan and reasons for deviations, top management must be able to prove that stakeholders has been informed but information itself will remain confidential and will not be available for disclosure to third parties.

6.4 Work environment

Fluid Filtration Manufacturing Corporation has a good working environment in compliance with good working practices, local regulations and requirements.

Reference documents

FFM-PR08	Personnel evaluation sheet
Appendix 1	Annual training plan
Appendix 5	Annual Business plan

7. PRODUCT REALIZATION

7.1 Planning of product realization

Fluid Filtration Manufacturing Corporation realizes its products according to the product realization process map (see reference documents). Product realization process map indicates all activities related to the product, each activity reference corresponding documents related, all documentation related to product realization are kept on records.

7.2 Customer related process

7.2.1 Determination of requirements related to the product

It is a function of sales department to determine all requirements related to the product.

All the requirements will be detailed in the Sales Order (see reference documents).

Sales will be responsibly of verifying customer requirements as indicated in their purchase order and will ensure that these requirements are clearly explained in the Sales Order.

Sales Order will be issued to manufacturing resource planning.

7.2.2 Review of requirements related to the product

It is a function of sales department and manufacturing resource planning to review that requirements from Sales Order are clearly understood and can be fulfilled. If a deviation arises in which customer requirements cannot be met, sales department will contact customer in order to review requirements before any commitment is made. This will only apply to non-standard products, if product is characterized as standard product, no review is necessary.

7.2.3 Customer communications

It is a function of sales department to carry out customer communications. Communications can be via email; fax or phone. When communications are relevant to product requirements, a copy must be attached to the sales order.

7.3 Design and development

7.3.1 Design and development planning

Design is a function of the engineering department.

Design planning will be carrying out from a request from sales department, product design request (see reference documents).

Once design is manufactured and accepted by customer, it will become a standard product.

7.3.2 Design and development inputs

Design will be based on current standards, Fluid Filtration Manufacturing Corporation design standards and customer standards and requirements.

7.3.3 Design and development outputs

Engineering will send a design draft that must be validated and approved from end customer.

7.3.4 Design and development review

Once customer approval is obtained for proposed design draft, manufacturing process planning will review the proposed design, if objections regarding possible problems on the manufacturing process arises then manufacturing resources planning will return the design draft for corrections with a manufacturing proposed design review (see reference documents). If a manufacturing proposed design review is generated then 7.3.1; 7.3.2 and 7.3.3 must be repeated.

7.3.5 Design and development verification

Once all above steps have been fulfilled the engineering department will verify the design draft and it will become a design for validation. Engineering will change status on design indicating that it has attained verification status.

7.3.6 Design and development validation

The general manager will receive design verification from engineering and will validate design, once validates engineering will change status to validated design. At that moment design is final and can be manufactured for customer.

7.3.7 Control of design and development changes

Engineering will keep records of design at all stages.

7.4 Purchasing

7.4.1 Purchasing process

Purchasing responsibility is manufacturing resource planning department.

Process is according to purchasing procedure FFM-PR09 (see reference documents).

Final authorization for issuing purchases orders is from general manager.

7.4.2 Purchasing information

All purchase information is displayed on the purchase order (see reference documents).

Purchase orders are electronically processed using Quickbooks 2013 software, all purchase orders are kept on record.

All raw materials, service and labor vendors related to product realization must be ordered only from approved vendors.

Approved vendors are on the master vendor list (see reference documents).

Purchases of items non related to product realization can be made from any vendor based on price and delivery.

7.4.3 Verification of purchased products.

Quality assurance supervisor must verify receival of purchased products related to product realization. Receival is accomplished by means of filling the receiving inspection (see reference documents).

Purchases non related to product realization can be received by manufacturing resource planning.

7.5 Product and service provision

7.5.1 Control of product and service provision

Manufacturing resource planning is responsible for control of product and service provision.

Manufacturing resource planning once received and acknowledged a sales order will verify availability of raw material; special requirements and/or external services/labor required for product realization.

Manufacturing resource planning will ensure that all related and necessary items required for product realization are available.

Once all of above steps are complied manufacturing resource planning will issue a shop job order (see reference documents).

Shop order must include:

- Manufacturing drawing
- Raw material
- Work instructions
- Required tooling

An in process inspection is to be carried out by shop foreman, FFM-PR12 In process inspection (see reference documents).

Once shop order is complete, shop foreman will place products on final inspection bin.

Quality assurance supervisor is responsible for final inspection, all final inspection will be documented as final inspection, FFM-PR13 Final Inspection (see reference documents), all final inspections are kept on record.

Final inspection may approve product, order rework and it may be declared as scrap part.

Approve products are placed on shipping bin, it is manufacturing resource planning responsibility to ship product, attach invoices and certificate of compliance.

Rework products are marked with yellow paint, placed on rework area, awaiting rework instructions from engineering (see reference documents).

Scrap products should be marked with red paint, placed outside controlled production areas. Final disposition of scrap products is general manager responsibility.

7.5.2 Validation of processes for production and service provision.

If shop foreman finds any difficulty and/or problems with product realization and deficiencies, he will issue a report to manufacturing resources planning, indicating the problem and its nature and possible solutions, if any. Report is kept on record in job folder.

7.5.3 Identification and Traceability

All products must be serialized.

Manufacturing resource planning is responsible for serialization and logging. A logbook with all serialized products must be kept, logbook must indicate:

- Date
- Customer
- Product description
- Quantity

- FFM part number or customer part number
- Sales order

A certificate of compliance must be issued, Appendix 14 "Certificate of Compliance" (see reference documents).

Traceability:

- It is a responsibility of manufacturing resources planning to ensure that all raw materials related to product realization are traceable.
- All raw materials must be traceable to purchase order.
- All purchase order must be kept on file with corresponding raw material certificates.
- Shop order must include besides material, purchase order number for raw material.
- All raw materials in inventory must be traceable to purchase order.

7.5.4 Customer property

Fluid Filtration Manufacturing Corporation will ensure that customer property is being kept properly while on our premises. To ensure this protection all customer property will be tagged and identified as customer property. It is responsibility of sales department to ensure that customer property is tagged and identified.

7.5.5 Preservation of product

Shop foreman is responsible of product preservation during realization.

Manufacturing resources planning is responsible of preservation after product realization.

If customer required special preservation is applied, if not standard preservation is given as per preservation of products FFM-PR10 (see reference documents).

7.6 Control of monitoring and measuring equipment

It is quality assurance supervisor responsibility control of monitoring and measuring equipment.

Monitoring and measuring equipment is being controlled by procedure control and calibration of measuring equipment FFM-PR11 (see reference documents).

All monitoring and measuring equipment is controlled and certified to national standards.

Reference documents

FFM-PR09	Purchasing procedure
FFM-PR10	Preservation of products
FFM-PR11	Control and calibration of measuring equipment
FFM-PR12	In process inspection
FFM-PR13	Final Inspection
Appendix 6	Product realization process map
Appendix 7	Sales Order
Appendix 8	Product design request
Appendix 9	Purchase order
Appendix 10	Master vendor list
Appendix 11	Receiving inspection
Appendix 12	Shop order
Appendix 13	Rework order
Appendix 14	Certificate of compliance

8. Measuring, analysis and improvement

8.1 General

Fluid Filtration Manufacturing Corporation will ensure conformity to products requirements. To achieve this goal following procedures are in place:

FFM-PR12 In process inspection

It is shop foreman responsibility completion and execution of in process inspection.

FFM-PR13 Final Inspection

It is quality assurance supervisor completion and execution of final inspection.

8.2 Monitoring and measurement

8.2.1 Customer satisfaction

Customer satisfaction is measured by procedure FFM-PR05 Customer Survey, it is sales department responsibility to carry out this procedure and to inform top management. Records must be kept FFM-PR03 Record Control (see reference documents).

8.2.2 Internal audit

Internal audit are carried out using procedure FFM-PR04, responsibilities for audit will vary according to department being audited.

Audits will be kept on record according to procedure FFM-PR03 Record Control.

8.2.3 Monitoring and measurement of processes

Fluid Filtration Manufacturing Corporation by means of the annual business plan and by completion of quality objectives will take any corrective actions related to the ability of the process to achieve planned results.

Manufacturing resources planning; quality assurance supervisor and shop foreman, are responsible for this action, at least once a year they will have to deliver a Process improvement report (see reference documents).

8.2.4 Monitoring and measurement of product

It is shop foreman responsibility completion and execution of in process monitoring and measurement inspection.

FFM-PR12 In process inspection

It is quality assurance supervisor completion and execution of final inspection.

FFM-PR13 Final Inspection

Above actions will ensure measurement of product conforms to requirements.

8.3 Control of nonconforming product

Fluid Filtration Manufacturing Corporation will ensure control of all non conformal products.

Non conformal products are of two types:

Products that can be reworked.

Products that cannot be reworked and must be scrapped.

It is responsibility of quality assurance supervisor to determine final product status, FFM-PR13 Final inspection.

Rework products are marked with yellow paint, placed on rework area, awaiting rework instructions from engineering (see reference documents).

Scrap products should be marked with red paint, placed outside controlled production areas. Final disposition of scrap products is general manager responsibility.

8.4 Analysis of data

Quality assurance supervisor is responsible of collecting and analyzing all data regarding:

- Product acceptance
- Rework
- Scrap

Quality assurance supervisor must present every year an annual review of data to top management, Quality Data Annual Review (see reference documents).

8.5 Continual improvement

8.5.1 Corrective action

Fluid Filtration Manufacturing Corporation will ensure that correctives actions are taken when non conformities; safety issues; and/or quality plans and/or objectives are not being achieved.

Corrective actions may be initiated by any department.

Corrective actions are as per format Corrective Action (see reference documents).

8.5.2 Preventive action

Fluid Filtration Manufacturing Corporation will ensure that preventive actions are taken when conformities; safety issues; and/or quality plans and/or objectives can be jeopardized by result of inadequacies that can be prevented.

Preventive actions may be initiated by any department.

Preventive actions are as per format Preventive Action (see reference documents).

Reference documents

FFM-PR03	Record Control
FFM-PR12	In process inspection
FFM-PR13	Final Inspection
Appendix 14	Rework order
Appendix 15	Process improvement report
Appendix 16	Quality data annual review
Appendix 17	Corrective action
Appendix 18	Preventive action