**ISO 9001:2015**

**Control of Management Reviews**

Text

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Approval

The signatures below certify that this management system procedure has been reviewed and accepted, and demonstrates that the signatories are aware of all the requirements contained herein and are committed to ensuring their provision.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
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Amendment Record

This procedure is reviewed to ensure its continuing relevance to the systems and process that it describes. A record of contextual additions or omissions is given below:

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Company Proprietary Information

The electronic version of this procedure is the latest revision. It is the responsibility of the individual to ensure that any paper material is the current revision. The printed version of this manual is uncontrolled, except when provided with a document reference number and revision in the field below:

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# Contents

[1 Management Review Procedure 3](#_Toc138236432)

[1.1 Introduction & Purpose 3](#_Toc138236433)

[1.1.1 Process Overview 3](#_Toc138236434)

[1.1.2 References 3](#_Toc138236435)

[1.1.3 Terms & Definitions 3](#_Toc138236436)

[1.2 Application & Scope 4](#_Toc138236437)

[1.3 Roles, Responsibilities & Authorities 4](#_Toc138236438)

[1.3.1 Roles & Responsibilities 4](#_Toc138236439)

[1.3.1.1 Top Management 4](#_Toc138236440)

[1.3.1.2 Quality Manager 4](#_Toc138236441)

[1.3.1.3 Line Managers and Department Managers 5](#_Toc138236442)

[1.3.2 Authority Matrix 5](#_Toc138236443)

[1.4 Management Review Process 6](#_Toc138236444)

[1.4.1 General 6](#_Toc138236445)

[1.4.2 Frequency 6](#_Toc138236446)

[1.4.3 Programme 7](#_Toc138236447)

[1.4.4 Agenda 7](#_Toc138236448)

[1.4.5 Attendance 8](#_Toc138236449)

[1.4.6 Management Review Meeting 8](#_Toc138236450)

[1.5 Management Review Inputs 9](#_Toc138236451)

[1.6 Management Review Outputs 11](#_Toc138236452)

[1.6.1 Outcomes & Actions 11](#_Toc138236453)

[1.6.2 Action Log 11](#_Toc138236454)

[1.6.3 Action Tracker 12](#_Toc138236455)

[1.6.4 Meeting Minutes 12](#_Toc138236456)

[1.6.5 Communication 13](#_Toc138236457)

[1.7 Monitor & Review 13](#_Toc138236458)

[1.7.1 Key Performance Indicators 13](#_Toc138236459)

[1.7.2 Corrective Action 14](#_Toc138236460)

[1.8 Documentation 14](#_Toc138236461)

[1.9 Management Review Process Map 15](#_Toc138236462)

1. Management Review Procedure
   1. Introduction & Purpose

The purpose of this procedure is to define the Manufacturing Made Easy Ltd process for undertaking management reviews in order to determine the continuing suitability, adequacy, and effectiveness of our QMS in meeting the requirements of ISO 9001, customer requirements and our quality objectives. This procedure also defines the responsibilities for planning, conducting, reporting results and retaining the associated documentation.

* + 1. Process Overview

The process overview (turtle diagram) provides internal and external auditors, process owners, and participants an overview of the elements that are required by the management review process:

**Output 9.3.3**

* Outcomes and decisions
* Revised objectives/KPIs
* Review minutes
* Signed attendance list
* Opportunities to improve
* Action log
* Action tracker
* Resources needs
* Communication of change

**How (Method)**

* Frequent review meetings
* Experience and intuition
* Evidence-based decision making

**With what measure**

* No. of reviews conducted
* No. of open/closed actions
* Total No. reviews completed
* Trends in data

**With what**

* ISO 9001:2015 Clause 9.3
* Review programme
* Review agenda filter
* Data from 9.1 and 9.2

**With who**

* Top management
* Quality Manager
* Process Owners

**Activity 9.3.1**

Undertake regular management reviews of the quality management system at planned intervals. Using experience and intuition to determine its continuing suitability, adequacy, effectiveness and alignment with our strategies. The output of the management review process is an input into our organization’s process of continuous improvement

**Input 9.3.2**

* Status of actions from previous meeting
* Changes in external and internal issues
* Performance/effectiveness of the QMS
* Adequacy of resources
* Effectiveness of actions
* Opportunities for improvement
  + 1. References

| **Standard** | **Title** | **Description** |
| --- | --- | --- |
| BS EN ISO 9000:2015 | Quality management systems | Fundamentals and vocabulary |
| BS EN ISO 9001:2015 | Quality management systems | Requirements |
| BS EN ISO 9004:2018 | Quality management systems | Guidelines for performance improvements |
| BS EN ISO 19011:2018 | Auditing management systems | Guidelines for auditing |

* + 1. Terms & Definitions

| **Term** | **ISO 9000:2015 Definition** |
| --- | --- |
| Effectiveness | Extent to which planned activities are realized and planned results achieved (3.7.11) |
| Review | Determination (3.11.1) of the suitability, adequacy or effectiveness |
| Corrective action | Action to eliminate the cause of a non-conformity (3.6.9) and to prevent recurrence |
| Top management | Person or group of people who directs and controls the organization (3.2.1) |

* 1. Application & Scope

Management reviews are a platform for determining and providing the resources needed to implement and maintain our quality management system, to continually improve its effectiveness, and to enhance customer satisfaction by meeting their requirements.

* 1. Roles, Responsibilities & Authorities

Regardless of the scope, roles and responsibilities are agreed by Top management and incorporated into existing job descriptions and included in yearly objectives. All roles and designated person(s), team(s), or group(s) are clearly communicated across Manufacturing Made Easy Ltd in order to encourage or improve collaboration and cooperation for cross-functional process activities.

* + 1. Roles & Responsibilities

The roles and responsibilities associated with the management review process are defined in the context of the management function and are not intended to correspond with organizational job titles. A role refers to a set of connected behaviours or actions that are performed by a person, team or group in a specific context.

* + - 1. Top Management

Top management are accountable for the effectiveness of the quality management system and for participation in management review meetings, and lead the discussion on strategic direction, business planning and strategic objectives, and for:

1. Reviewing the quality management system at planned intervals;
2. Setting the review frequency;
3. Preparing and distributing the *Management Review Minutes*;
4. Ensuring the continuing suitability (fit for purpose);
5. Ensuring the continuing adequacy (meets the needs of the organization);
6. Ensuring the continuing effectiveness (achieves intended results);
7. Ensuring that management reviews are conducted at planned intervals;
8. Determining requirements for resources and training needs;
9. Making judgements about the adequacy of quality performance;
10. Attending management review meetings as required.
    * + 1. Quality Manager

The Quality Manager ensures the provision of quality services and projects to customers (internal and external), additionally the structure allows for independence and authority of the quality function:

1. Implementing and coordinating the *Management Review Programme*;
2. Preparing and distributing the *Management Review Agenda*;
3. Determining the review schedule and dates in coordination with participating attendees;
4. Preparing summaries of internal and external audits results;
5. Acting as liaison with customers, regulatory authorities and registrars regarding QMS issues;
6. Preparing summaries of nonconformities and corrective action reports;
7. Assessing changes in legislation/statutory requirements and legal compliance;
8. Summarizing stakeholder feedback;
9. Determining requirements for resources and training needs;
10. Making judgements about the adequacy of quality performance;
11. Attending management review meetings as required.
    * + 1. Department Head

Department Head are responsible for:

1. Tracking, monitoring and reporting on their individual objectives;
2. Preparing reports, circulated prior to the meeting, which summarise performance;
3. Making judgements about the adequacy of quality performance;
4. Reporting the status of objectives;
5. Determining requirements for resources and training needs;
6. Attending management review meetings as required.
   * 1. Authority Matrix

Once the roles and responsibilities are assigned, the assignees are empowered to execute the role activities and given the appropriate authority for holding other people accountable. Manufacturing Made Easy Ltd uses an authority matrix as a tool to help understand which parties need to be involved in the management review process:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Authority Matrix**  R = Responsible - executes the activity or task  A = Accountable - accountable for the final result  C = Consulted - consulted about the task to provide additional information  I = Informed - needs to be kept up-to-date on activities and tasks | **Process Participants** | | | | |
| **Process Owners** | **Quality Manger** | **Top Management** | | |
| **Activities and Steps Within the Process** |
| Schedule management review meetings | I | R | A | | |
| Management review chair person | I | C | R | | |
| Prepare and distribute the management review agenda | I | R/A | C/I | | |
| Discuss previous actions | C | C/I | R | | |
| Discuss changes to the QMS | C | C/I | R | | |
| Discuss the performance of the QMS | C | C/I | C/I | | |
| Discuss levels of customer satisfaction | C | R/A | A | | |
| Discuss attainment of the quality objectives | C | R/A | A | | |
| Discuss project and process conformity | C | R/A | A | | |
| Discuss NCR/CA root-causes | C | C/I | A | | |
| Discuss monitoring and measurement results | C | R/A | A | | |
| Discuss internal audit results | C | R/A | A | | |
| Discuss external providers | C | C/I | A | | |
| Discuss resources needs | C | C/I | R/A | | |
| Discuss actions to address risk | C | C/I | R/A | | |
| Discuss improvement actions | C | R/A | R/A | | |
| Note decisions and actions in the action log | I | I | | R, A |
| Prepare and distribute management review minutes | I | R, A | | I |
| Track management review actions | I | R, A | | I |

* 1. Management Review Process
     1. General

In order leverage management meetings that already take place, management review meetings are undertaken as standalone review meetings or combined with other business reviews, such as strategic planning, business planning, operations meetings, process reviews, and functional reviews as appropriate.

The management review meeting will include representation from Top management, functional managers, line managers, process owners, process users and action owners. Top management’s arrangements for reviewing the QMS at planned intervals, are as per ISO 9001:2015 - Clause 9.3.1, to ensure our QMS remains:

1. Suitable (fit for purpose);
2. Adequate (meets the needs of the organization);
3. Effective (achieves intended results).

Records of these management review meetings are maintained in the form of minutes and where actions are identified, these are assigned to named personnel with timescales for their completion. The management review will also decide if any corrective action is required.

* + 1. Frequency

Management reviews are conducted regularly using the data collected from the monitoring and measurement process to identify areas for further improvement.

The process is driven by the continuous assessment of the risks related to internal and external changes and performance-related issues. Various performance metrics are monitored by Manufacturing Made Easy Ltd with varying frequencies, some hourly; some daily, weekly and some monthly, or six-monthly.

Each management review meeting may require multiple subjects and departmental input, relying upon multiple metrics and data analysis. When more frequent meetings are conducted, the meeting agenda is reduced to focus on operational or customer-critical issues, with the full review cycle of the QMS occurring annually.

| **Agenda Item (ISO 9001:2015 9.3.2)** | **Impact to Customer or Business** | **Frequency** | **Type of Meeting** |
| --- | --- | --- | --- |
| Previous actions | High | Monthly | Functional review |
| Changes to the QMS | Low | Six-monthly | QMS review |
| Performance of the QMS | Very High | Weekly/Daily | Quality review |
| Customer satisfaction | High | Monthly | Functional review |
| Quality objectives | Medium | Quarterly | Planning review |
| Project/Process conformity | Very High | Weekly/Daily | Quality review |
| NCR/CAR root-causes | Medium | Quarterly | Planning review |
| Monitoring and measurement results | Very High | Weekly/Daily | Quality review |
| Internal audit results | Low | Six-monthly | QMS review |
| External providers | Medium | Quarterly | Planning review |
| Resources required | Medium | Quarterly | Planning review |
| Actions to address risk | Low | Six-monthly | QMS review |
| Improvement actions | High | Monthly | Functional review |

Responding to changing or special conditions and events, the frequency of management review activities will increase. Responding to changing or special conditions and events, the Quality Manager or the CEO will call for an unscheduled extraordinary review.

Top management will determine the actual date for the review, coordinating with participating and Department Managers.

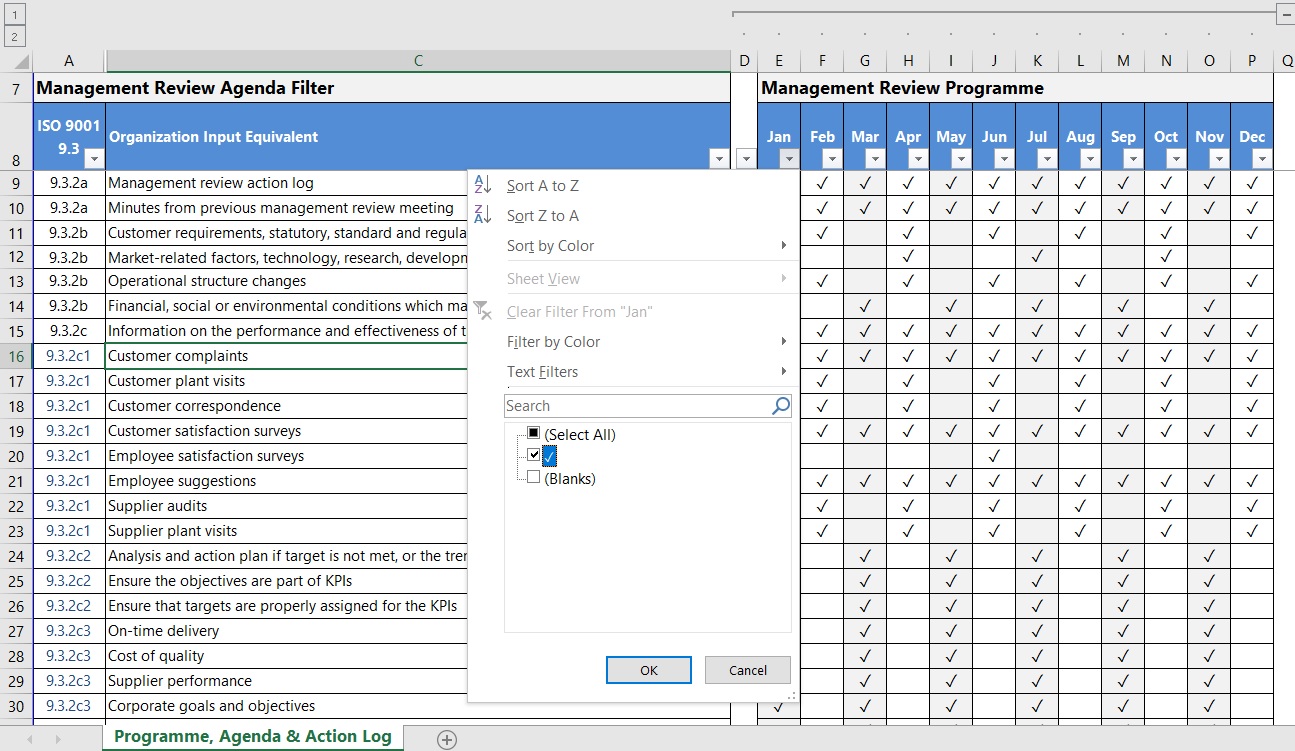
* + 1. Programme

The management review programme is prepared and distributed by the Quality Manager in order to coordinate the management review activities. As per Section 1.4.2, critical agenda items, such as; process performance, project conformity, and monitoring and measuring results are reviewed monthly, while less critical agenda items, such as reviewing the quality objectives is undertaken quarterly.

| **Agenda Item (9.3.2)** | **Jan** | **Feb** | **Mar** | **Apr** | **May** | **Jun** | **Jul** | **Aug** | **Sep** | **Oct** | **Nov** | **Dec** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Previous actions | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Changes to the QMS | ✓ |  |  |  |  |  | ✓ |  |  |  |  |  |
| Performance of the QMS | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Customer satisfaction | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Quality objectives |  | ✓ |  |  | ✓ |  |  | ✓ |  |  | ✓ |  |
| Project conformity | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| NCR/CAR root-causes |  | ✓ |  |  | ✓ |  |  | ✓ |  |  | ✓ |  |
| Monitoring results | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Internal audit results |  |  |  |  |  | ✓ |  |  |  |  |  | ✓ |
| External providers | ✓ |  |  | ✓ |  |  | ✓ |  |  | ✓ |  |  |
| Resources required |  |  | ✓ |  |  | ✓ |  |  | ✓ |  |  | ✓ |
| Actions to address risk |  |  |  |  | ✓ |  |  |  |  |  | ✓ |  |
| Improvement actions | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |

* + 1. Agenda

The Quality Manager will distribute the meeting notice by e-mail to the required attendees. Based upon the frequency and topics to be addressed, the agenda will cover the selected management review input items listed in Section 1.5 of this procedure.



The inputs required for the management review process will be clearly defined in the form of an agenda for each meeting. Based upon the frequency and topics to be addressed, use the filter the 'Month' Columns E8 to P8 by selecting only the '✓' from the filter drop-down menu.

This will filter the agenda items list in Column C to show only those management review inputs that are relevant to the current management review meeting. It is highly recommended that the management review agenda is formulated to ensure the required outputs can be achieved.

Select the filtered agenda items from Column C, and copy and paste them into the Management Review Minutes.docx. Distribute to the attendees 1-week before the review meeting.

The agenda for management review meetings is prepared by Quality Manager. It is then reviewed and approved by Top management and distributed to the participating managers at least one week prior to the review meeting.

* + 1. Attendance

Minimum representation at the management review will include a member of Top management, acting as the Chairperson, and will be attended by the department heads, line management, process owners, process champions, lead process users, and action owners appropriate to the meeting agenda.

Each Department Manager prepares a report to be circulated prior to the meeting, which summarizes our organization’s performance. No more than two managers may be absent from the meeting. A member of Top management, and the Quality Manager will always attend. At least one representative from each functional area will be present and expected to give input regarding the agenda.

Those managers who are unable to attend may send representatives in their place. If a required attendee’s absence is unavoidable, the meeting chair will review the minutes with that person, record their feedback, if any, and schedule follow-up meetings as necessary.

The meeting chairs denoted in this procedure may delegate this responsibility to another member of the management team in the event that they cannot attend. The absent managers will receive minutes of the review meeting and, after reviewing the minutes, may submit their input and comments to Top management and/or the Quality Manager.

* + 1. Management Review Meeting

The meeting chair (A member of Top management) denoted in this procedure may delegate this responsibility to another member of the management team in the event that they cannot attend.

The functions responsible for presenting for each topic are denoted on the agenda. The meeting chair will work with those functions to prepare and compile their input for review. Management review meeting participants will review and discuss all information while using experience and intuition to determine the QMS’s continuing suitability, adequacy, effectiveness and alignment with our strategies.

Where necessary, participants will identify deficiencies related to the performance of the QMS or the subsystem. Deficiencies may be associated with items of regulatory noncompliance or best management practices, outdated or inadequate policies and procedures, problems with the implementation of policies and procedures, undesirable trends in operational performance, inadequate human or financial resources, and staffing suggestions.

For all deficiencies identified, management review participants will identify action items and the personnel responsible for implementing action items, and timelines for completion. The Quality Manager will take notes during the management review meeting concerning all pertinent discussions and any deficiencies identified.

* 1. Management Review Inputs

The results of the analysis and evaluation (Clause 9.1.3) will be available to Top management for their review in order to evaluate any identifiable characteristics or trends that could potentially lead to a nonconformity occurring.

In addition to the topics listed below, formal management reviews will also consider such issues as cost of quality and non-quality; integration of the quality system with other operations and activities; market and customer response to the quality effort; and any other such issues related to the quality management system.

Supporting data, may or may not include or be limited to the sources of data listed below for each agenda item but includes:

| **Inputs** | **Requirement and Guidance** | **Organization Input Equivalent** |
| --- | --- | --- |
| 9.3.2a | Status of actions from previous meeting (open/closed) from previous meeting(s), ageing profile of open actions: | Management review action log |
| Minutes from previous management review meeting |
| 9.3.2b | Changes in external and internal issues that are relevant to the quality management system (Clause 4.1), changes to internal/external requirements, e.g., policies, processes, procedures, methods, instructions, contracts, regulation, legislation, that impact the QMS: | Customer requirements, statutory, standard and regulatory requirements |
| Market-related factors, technology, research, development, and competitor performance |
| Operational structure changes |
| Financial, social or environmental conditions which may impact the organization |
| 9.3.2c | Information on the performance and effectiveness of the QMS (Clause 4.4), including trends in: | |
| 9.3.2c1 | Customer satisfaction and feedback from relevant interested parties (Clause 9.1.2), e.g., interviews, questionnaires and surveys, report cards, indicators, ratings, complaints and compliments arising from: | Customer complaints |
| Customer plant visits |
| Customer correspondence |
| Customer satisfaction surveys |
| Employee satisfaction surveys |
| Employee suggestions |
| Supplier audit |
| Supplier plant visits |
| 9.3.2c2 | The extent to which quality objectives have been met (Clause 6.2), the status of planned versus actual achievement and the relevance of the quality policy (Clause 5.2): | Analysis and action plan if target is not met, or the trend is negative |
| Ensure the objectives are part of KPIs |
| Ensure that targets are properly assigned for the KPIs |
| 9.3.2c3 | Process performance and conformity of projects (Clauses 4.4, 8.6 & 8.7): | On-time delivery |
| Cost of quality |
| Supplier performance |
| Corporate goals and objectives |
| 9.3.2c4 | Nonconformities and the status of corrective actions (Clause 10.2), e.g., analysis of nonconformity by type, process, area, root cause, etc.: | CAR Log |
| NCR Log |
| Customer complaint log |
| Management review action items list |
| 9.3.2c5 | Analysis of appropriate data (Clause 9.1.3) arising from monitoring and measurement (Clause 9.1.1) in order to evaluate trends in: | KPIs |
| Inspection and test results |
| Customer satisfaction and perception |
| Project conformance |
| Process performance |
| Project and process characteristics |
| Supplier performance |
| 9.3.2c6 | Audit results (Clause 9.2), e.g., achievement of the audit programme, areas of good practice, nonconformity profile (number, type, process, area, significance), status of corrective action, audit close out, external audit findings: | Internal QMS audits |
| Process and project audits |
| Customer audits |
| Registrar audits |
| Internal audit schedule |
| Opportunities for improvement |
| 9.3.2c7 | Performance of external providers (Clause 8.4), e.g., dashboards, scorecards, performance indicators, performance trends, right first time, on time delivery, escapes to the customer, complaint profile, returns/rejections: | Minutes and action items from previous supplier review |
| Supplier project quality issues |
| Supplier on-time delivery performance |
| Status of supplier corrective action requests |
| Supplier ratings |
| Best/worst suppliers |
| 9.3.2d | Adequacy of resources (Clause 7.1), including people (number, roles, competency etc.), infrastructure (buildings, equipment, systems, transport etc.), working environment (physical and human factors, monitoring and measuring equipment (availability, fit for purpose, maintained): | Manpower (Clause 7.1.2) |
| Infrastructure (Clause 7.1.3) |
| Work environment (Clause 7.1.4) |
| Monitoring and measuring resources/instruments (Clause 7.1.5) |
| Organizational knowledge (Clause 7.1.6) |
| Competence (Clause 7.2) |
| Awareness (Clause 7.3) |
| Communication (Clause 7.4) |
| Documented information, its control and retention (Clause 7.5) |
| 9.3.2e | Effectiveness of actions taken to address risks and opportunities (Clause 6.1), e.g., risk profile, risk register(s), status of open/closed actions, ageing profile of open actions, evaluation of effectiveness: | Internal issues |
| External issues |
| Needs and expectations of interested parties |
| Lessons learned |
| 9.3.2f | Opportunities for improvement (Clause 10.1), corrective action plans, good practice, best practice, potential innovation, etc.: | Recommendations for improvement |
| Customer related requirements |
| Resource needs |

Following each formal presentation, based on evidence; balanced with experience and intuition, the participating managers discuss the issues, compare their status and performance with preceding periods; and identify areas where improvement is required.

* 1. Management Review Outputs
     1. Outcomes & Actions

Manufacturing Made Easy Ltd ensures action is taken where customer requirements are not achieved. Process owners will be encouraged to address customer performance issues related to the processes they manage. The outcomes and actions resulting from management review meeting are addressed using one or more of the following methods, but not limited to:

1. Corrective action (CA);
2. Improvement project (IP);
3. Minor action items identified for informal follow-up by the next review meeting.

The output of the management review process is taken as input into Manufacturing Made Easy Ltd.’s process of continuous improvement. Output from the management review process includes decisions and actions related to:

1. Opportunities for improvement (see 10.1) e.g., read across and implementation of corrective action, good practice, best practice, innovation, lessons learned etc.;
2. Changes to the QMS (see 6.3), e.g., objectives, processes, procedures, methods, instructions;
3. Resource needs (see 7.1), e.g., people (number, roles, training), infrastructure (buildings, equipment, systems, transport), working environment (physical and human factors), monitoring and measuring equipment (availability, fit for purpose, maintained);
4. Identified risks (see 6.1 and 8.1.1), e.g., adding new risks at an organization or operational level to the appropriate register(s) and the assignment of responsibility and treatment;
5. Documented evidence of the review, e.g., attendance list, agenda, presentations, meeting minutes, actions (list, owners, timescale), reports;
6. Retention of documented information of the review and communication of the relevant content across the organization (see 7.4).

Upon complete review of all inputs and generation of the outputs, Top management will determine the continued suitability, adequacy and effectiveness of the quality management system. Results are reported to all employees during monthly Functional Review Meetings. Decisions that do not result in actions will be recorded in Meeting Minutes.

* + 1. Action Log

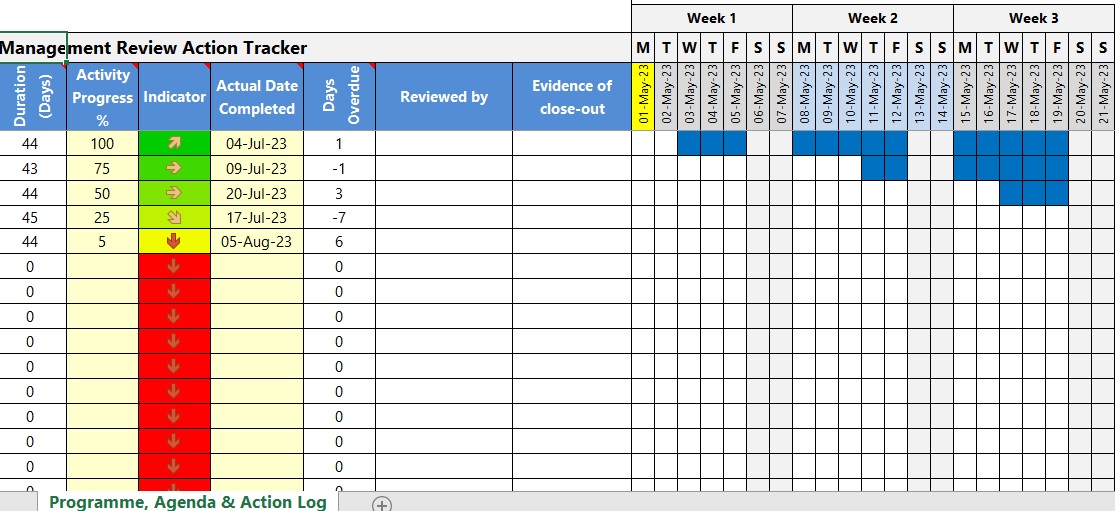
Observations, conclusions, and recommendations for further necessary action from the review will be recorded. If any corrective action must be taken, Top management will follow up to ensure that the action was effectively implemented. Whenever applicable, action items include assignment of responsibility, timeframe, and allocation of resources for implementation of the action.

| **Decision** | **Action** | **Assigned** | **Reviewed** | **Completed** | **Evidence of Close-out** |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |
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* + 1. Action Tracker

The management review Action Tracker is maintained by the Quality Manager. Corrective actions are initiated when problem solving is necessary. The Management Review Tool.xlsx comprises a basic Gantt Chart that illustrates the work needed to close-out review actions over a period of time with schedule bars that visualize duration.

1. Enter the period start date in Cell AF8 - Please note: the date must be a Monday!
2. Enter the 1st planned start date in the relevant Cell in Col U and set the planned finish date in Col V;
3. The duration in days is shown in Col X. Duration bars from Col AF onwards are shaded based on the dates;
4. Record the estimated % progress of each activity in Col Y, this highlights the indicator in Col Z;
5. Record the actual date the activity is completed in Col AA, days overdue are shown in Col AB.



* + 1. Meeting Minutes

Minutes of management review meetings are prepared by the Quality Manager and are distributed to the attending and, if any, absent managers. Ensure that minutes of the management review meeting are forwarded to those on the distribution list and those with actions. The meeting minutes include as a minimum:

* All attendees and apologies;
* Meeting date and location;
* New action items and assigned responsibility;
* Summary of each agenda item;
* Records of decisions and actions relating to:
  + Improvement of the effectiveness of the quality management system and its processes (documented via corrective actions or similar actions):
    - Performance improvement objectives for the organization;
    - Performance objectives for processes;
    - Loss prevention and mitigation plans for identified risks.
  + Improvement of project related to customer requirements (documented via continuous improvement projects or similar actions):
    - Performance objectives for projects;
    - Strategies and initiatives for marketing, projects and satisfaction of customers and other interested parties.
  + Assessing resource needs:
    - Appraisal of the suitability of the organization’s structure and resources;
    - Information for strategic planning for future needs of the organization.

Whenever applicable, action items include assignment of responsibility, timeframe, and allocation of resources for implementation of the action.

The Quality Manager forwards the minutes of the management review meeting to those on the distribution list and those with actions. Whenever applicable, action items include assignment of responsibility, timeframe, and allocation of resources for implementation of the action. The minutes and other documents associated with the management review are considered private.

* + 1. Communication

Selected management review outputs are communicated to various levels in the organization to demonstrate to our employees how the management review process leads to new objectives that will benefit the organization.

The management review outcomes and actions are reported to our employees. Copies of staff meetings communicating the outcomes and actions are cross-referenced with the relevant management review minutes.

* 1. Monitor & Review

Depending on the criticality of the problem-solving, oversight is provided via regular reviews: e.g., daily quick meetings held to update each other on the progress, including Top management when needed. The Quality Manager and Top management determine if the action taken could potentially be applied to benefit other areas of the organization. Customer complaints will be regularly reviewed to identify areas of our operations and projects that may require improvement.

* + 1. Key Performance Indicators

The objective of Key Performance Indicators (KPIs) is to provide a transparent and comprehensive framework for process control through regular quality assessments in order to evaluate whether the processes are running according to expectations in terms of quality, time and costs; and if changes to the process are required.

The KPIs and metrics listed below reflect specific and quantifiable indicators that Manufacturing Made Easy Ltd uses to evaluate the quality of the process and ensure ongoing optimization and process design improvements. KPIs are reported quarterly, however, Top management may require more frequent reporting of metrics and KPIs as necessary. The following are to be measured over a specific time period e.g., quarterly etc.:

| **Key Performance Indicator** | **Definition** |
| --- | --- |
| Purchased parts failure rate | Number of nonconforming parts in relation to total number of purchased parts (per period). |
| Supplier related nonconformance costs | Nonconformance costs caused by suppliers in relation to total procurement costs. |
| Number of nonconformity reports issued | Ratio between the number of supplier nonconformity reports issued to suppliers by the entity during a period in relation to number of production hours over the same period x multiplied by 1000. |
| Supplier on-time delivery | The number of parts received from supplier divided by number of parts confirmed to be delivered by the supplier (per period). |
| Supplier delivery performance | The sum of on time in full purchase order schedule lines in relation to the sum of expected schedule deliveries. Note: on time in full deliveries: lines totally delivered at planned date +/- x working days. |

The following table provides examples of metrics related to nonconformances. There is no obligation to apply all examples, each organization is free to define their own KPIs and metrics.

| Metrics | Definition |
| --- | --- |
| Defectiveness after release | Hours spent to close the defects identified after the release in relation to total effort to develop the service |
| Right First Time (RFT) | Number of deployments meeting the requirements at final inspection/test divided by number of deployments inspected (per period) |
| Nonconformity processing time | Average time to close all related actions after the opening date (measured over x rolling months) |
| First pass yield | Ratio of "passed" tests over the total number of tests in the last period |
| Complaint processing time | Average time to close all related actions after the opening date (measured over x rolling months) |
| Rate of total cost of non-quality | Sum of all costs related to scrap, rework and repair, modifications, penalties, extra warranty costs in relation to sales revenue |
| Claim and warranty costs | Total costs of claim and warranty in relation to sales revenue |
| Nonconformance-costs before delivery | Nonconformance-costs (e.g., all kind of unplanned costs) before delivery in relation to the revenue of the service |

* + 1. Corrective Action

Any outputs from the meeting are actioned as necessary through the corrective action system. Improvement actions are formulated as quality objectives with specific measurable targets, due dates, assignments of responsibilities, and allocation of resources for their implementation.

Management review meeting action items are considered to be closed only after all associated corrective actions have been completed, and followed-up by the Quality Managerin order to verify the effectiveness of implementation.

When a formal corrective action is not taken in a timely manner, and a request for an extension has not been received, the deficiency is brought to the attention of Top management.

* 1. Documentation

Minutes of management review meetings are prepared by the Quality Managerand are distributed to the attending and, if any, absent managers. The minutes and other documents associated with the review are confidential.

All documentation and records generated by the management review process is retained and managed in accordance with the *Documented Information Procedure*, by the quality Manager on the local area network.

| **Title & Description** | **Hyperlink** | **Retention Period** |
| --- | --- | --- |
| Management Review Tool | Management Review Tool (Programme & Agenda).xlsx | 2 years |
| Management Review Minutes | Management Review Minutes.docx | 10 years |
| Management Review Guidance | Management Review Guidance.pdf | N/a |

* 1. Management Review Process Map

Using a top-down approach, the management review process map describes how the process is structured into a hierarchy of activities that shows the sequence of steps, as well the responsibilities for each step or task:

|  |  |
| --- | --- |
| **Quality Manager** | **Top Management** |
| Management review inputs are prepared by Process Owners 1-week in advance   1. Actions from previous review meetings; 2. The status of actions from previous management reviews; 3. Changes in external and internal issues that are relevant to the quality management system; 4. Information on the performance and effectiveness of the quality management system; 5. Trends in customer satisfaction and feedback from relevant interested parties; 6. The extent to which quality objectives have been met; 7. Process performance and conformity of projects; 8. Nonconformities and corrective actions; 9. Monitoring & measurement, and audit results; 10. Performance of external providers; 11. Adequacy of resources; 12. Effectiveness of actions taken to address risks and opportunities; 13. Opportunities for improvement.   Documentation & Records  Schedule Management Review Meetings & Issue Agenda  Monitor Objectives, Targets & Policies  Analyze Performance, Results & Trends | Management Review Outputs   * Opportunities for improvement; * Changes to the QMS; * New or revised risks; * Resource needs. * Attendance list, agenda, presentations, minutes, actions (list, owners, timescale)   Assess & Agree Changes  **Adequate**  **Inadequate**  **Ineffective**  **Unsuitable**  Undertake corrective action  Monitor for change  **Effective**  **Suitable**  Effective (achieves intended results)  Adequate (meets the needs of the business  Suitability (fit for purpose) |