FOREWORD

Roll-Kraft began in 1963 in Willoughby, Ohio, when founder and roll tooling maker George F. Gehrisch started the company in a small house and garage.

In 1978 we constructed a modern new facility allowing us to expand our presence in the roll tooling marketplace. The steady growth of the company turned to rapid expansion in the early 1990s. Roll-Kraft Northern, a satellite manufacturing facility, was established to better service the Midwest, and the company’s ever-growing North American footprint triggered an international expansion. In a short time frame, Roll-Kraft’s tooling was sold in more than 50 countries.

In 1995, the company expanded into a different area of metal roll-forming. From inception, products and services were directed at producers of welded tube and pipe. A natural progression was to offer similar products and services to metal roll form manufacturers of open profile (non-welded) shapes. Today we have the largest roll tooling engineering staff in the industry.

In 1999, continued growth prompted the company to construct a new, 110,000-square-foot, state-of-the-art design and manufacturing facility in Mentor, Ohio.

In December 2004, Roll-Kraft’s wholly owned subsidiary Roll-Kraft Ltd., acquired Empire Precision Tooling, a reputable designer and manufacturer of Roll Tooling located in Ontario, Canada. In 2007, to facilitate our growth in Canada, Roll-Kraft Ltd. moved into a new facility in Woodbridge, Ontario.

In 2014, Roll-Kraft took another step as the industry leader in on-time delivery and first-time performance of its tooling by installing several 80-inch digital monitors throughout its facility to keep all staff informed of metrics critical to product quality and customer satisfaction.

Roll-Kraft continued its expansion in 2015 by opening a new facility in Houston, Texas. The 12,000-square-foot space, which includes a truck dock for efficient loading and unloading of roll tooling, pickup and delivery service, is available for customers in Texas and the surrounding area. In 2016, the company completed the acquisition of Chicago Roll Company. The new facility is home to over 48,000 square feet of manufacturing space, designed specifically for manufacturing tube, pipe, and roll form tooling, and it is home to 17 CNC turning-center machines that are capable of 24-hour operation.

The company is currently led by president Sanjay Singh, who was elevated to that role in 2015. Former president, Chuck Gehrisch, is Roll-Kraft’s chairman and CEO.
## REVISION CONTROL SHEET

<table>
<thead>
<tr>
<th>DATE</th>
<th>REV.</th>
<th>DESCRIPTION OF REVISION</th>
<th>WRITTEN BY</th>
<th>APPROVED BY</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/24/13</td>
<td>01</td>
<td>Revised Manual throughout and identified processes – Appendix B</td>
<td>G. Lazar</td>
<td>C. Gehrisch</td>
</tr>
<tr>
<td>9/25/18</td>
<td>02</td>
<td>Revised Manual to remove ISO references</td>
<td>G. Lazar</td>
<td>C. Gehrisch</td>
</tr>
</tbody>
</table>
# Roll-Kraft Quality Manual

## TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>2</td>
</tr>
<tr>
<td>Revision Control Sheet</td>
<td>3</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>4</td>
</tr>
<tr>
<td>Manual Administration</td>
<td>5</td>
</tr>
<tr>
<td><strong>Quality Management System</strong></td>
<td>6</td>
</tr>
<tr>
<td>General Requirements</td>
<td>7</td>
</tr>
<tr>
<td>Documentation Requirements</td>
<td>7</td>
</tr>
<tr>
<td><strong>Control of Documents</strong></td>
<td>8</td>
</tr>
<tr>
<td><strong>Management Responsibility</strong></td>
<td>9</td>
</tr>
<tr>
<td>Management Commitment</td>
<td>9</td>
</tr>
<tr>
<td>Customer Focus</td>
<td>10</td>
</tr>
<tr>
<td>Quality Policy</td>
<td>10</td>
</tr>
<tr>
<td>Planning</td>
<td>11</td>
</tr>
<tr>
<td>Responsibility, Authority and Communication</td>
<td>11</td>
</tr>
<tr>
<td>Management Review</td>
<td>12</td>
</tr>
<tr>
<td><strong>Resource Management</strong></td>
<td>13</td>
</tr>
<tr>
<td>Provision of Resources</td>
<td>13</td>
</tr>
<tr>
<td>Human Resources</td>
<td>14</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>14</td>
</tr>
<tr>
<td>Work Environment</td>
<td>14</td>
</tr>
<tr>
<td><strong>Product Realization</strong></td>
<td>15</td>
</tr>
<tr>
<td>Planning of Product Realization</td>
<td>15</td>
</tr>
<tr>
<td>Customer-Related Processes</td>
<td>15</td>
</tr>
<tr>
<td>Design and Development</td>
<td>16-18</td>
</tr>
<tr>
<td>Purchasing</td>
<td>18</td>
</tr>
<tr>
<td>Production and Service Provision</td>
<td>19</td>
</tr>
<tr>
<td>Control of Monitoring and Measuring Equipment</td>
<td>20</td>
</tr>
<tr>
<td><strong>Measurement, Analysis and Improvement</strong></td>
<td>21</td>
</tr>
<tr>
<td>General</td>
<td>21</td>
</tr>
<tr>
<td>Monitoring and Measurement</td>
<td>21-22</td>
</tr>
<tr>
<td>Control of Nonconforming Product</td>
<td>23</td>
</tr>
<tr>
<td>Analysis of Data</td>
<td>23</td>
</tr>
<tr>
<td>Improvement</td>
<td>24</td>
</tr>
<tr>
<td>Process Interaction Diagram</td>
<td>25</td>
</tr>
<tr>
<td>Support Processes</td>
<td>26</td>
</tr>
</tbody>
</table>
MANUAL ADMINISTRATION

The Quality Manual is subject to amendments as a result of changes to working practices and is reviewed periodically for adequacy. Requests for revision shall be written and submitted to the Quality Management Representative. Final approval of the Quality Manual is by the President of Roll-Kraft.

The administration, control, and issue of this manual are the responsibility of the Quality Management Representative.

The information contained in this document is the property of Roll-Kraft and cannot be distributed or reproduced without the approval of the Quality Management Representative.

Controlled copies of this Quality Manual will be listed on the Roll-Kraft Document Master list, they are current when issued and will be subject to automatic update when parts of the manual are revised. Uncontrolled copies will not be updated.
THE QUALITY MANAGEMENT SYSTEM

QUALITY SCOPE

The Quality Manual, the detailed Processes and Work Instructions that make up the Quality Management System in place at Roll-Kraft.

Roll-Kraft is an organization committed to providing viable solutions to the tube, pipe and roll forming industries. The policies documented within this Quality Manual apply to Roll-Kraft, Mentor, OH.

Exclusions:

None
Roll-Kraft Quality Manual

General requirements

Roll-Kraft has established, documented, implemented, and maintains a quality management system and continually improves its effectiveness.

Roll-Kraft:

a. has identified the processes needed for the quality management system and their application throughout the organization (Appendix B),
b. has determined the sequence and interaction of these processes,
c. has determined criteria and methods needed to ensure that both the operation and control of these processes are effective,
d. ensures the availability of resources and information necessary to support the operation and monitoring of these processes,
e. monitors, measures and analyzes these processes, and
f. implements actions necessary to achieve planned results and continual improvement of these processes.

These processes are managed by Roll-Kraft.

If Roll-Kraft chooses to outsource any process that affects product conformity with requirements, Roll-Kraft ensures control over such processes, as identified within the quality management system.

Documentation Requirements

General

Roll-Kraft’s quality management system documentation includes a written quality policy and supporting quality/business objectives, a quality manual describing the overall quality management system, procedures documenting the processes of the quality management system, and other documents needed to effectively plan, operate, and control the quality management system.

Roll-Kraft also maintains records that state results achieved or provides evidence of activities performed.
Roll-Kraft Quality Manual

Quality Manual

Roll-Kraft’s quality management system defined in this manual provides viable solutions to the tube, pipe and roll forming industries.

The Quality Manual covers policies, practices, processes/procedures and their interactions (Appendix B), requirements for quality, continuous improvement, and customer satisfaction that are needed to achieve objectives stated by Roll-Kraft.

Control of Documents

Roll-Kraft maintains procedures to control documents that relate to the requirements specified in the quality management system. Details of methods, responsibilities related to documentation, and records are defined in these written procedures. These procedures will include documentation required for the achievement of customer satisfaction and the effective operation of the quality management system. The documentation required for the achievement of this quality consists of, but is not limited to:

- Quality Manual
- Business Process Procedures
- Work Instructions

Roll-Kraft ensures that all documents used in the quality management system, including documents of external origin, are properly identified and controlled.

Records are a special type of document and are controlled.

Roll-Kraft maintains a documented procedure defining the controls to:

a. approve documents for adequacy prior to issue,
b. review and update as necessary and re-approve documents,
c. ensure that changes and the current revision status of documents are identified,
d. ensure that relevant versions of applicable documents are available at points of use,
e. ensure that documents remain legible and readily identifiable,
f. ensure that necessary documents of external original are identified and their distribution controlled,
g. prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.
Control of records

Roll-Kraft maintains a documented procedure to control records, which includes the identification, storage, protection, retrieval, retention, and disposition of records.

Records are maintained to demonstrate conformance to specified requirements and the effective operation of the quality management system, including records of suppliers.

Such records are comprised of, but not limited to:

- Management Review records;
- Customer Order Review records;
- Approved Supplier List;
- Inspection records;
- Calibration records;
- Corrective Action records;
- Internal Audit reports;
- Nonconforming Product records;
- Training records;

Records are legible, readily identifiable, and stored and maintained in such a way that they are readily retrievable from facilities that provide a suitable environment to prevent deterioration or damage and to prevent loss. Retention times of records have been established.

MANAGEMENT RESPONSIBILITY

Management Commitment

Roll-Kraft’s management provides evidence of its commitment to the development and implementation of the quality management system and continuous improvement by:

a. Communicating to the organization the importance of meeting customer as well as regulatory and legal requirements during organizational meetings and employee training events;

b. Establishing the quality policy and quality objectives;

c. Conducting management reviews.

d. Ensuring the availability of necessary resources;
Customer Focus

Roll-Kraft’s management ensures that customer requirements are determined and are met with the aim of enhancing customer satisfaction.

Quality Policy

Continually improve the level of quality and service to our customers with the dedication of our people.

The responsibility for establishing the Quality Policy as stated above rests with the President and management team of Roll-Kraft.

The President and management team ensure that the quality policy:

a. Is appropriate to the purpose of the organization;

b. Includes a commitment to comply with requirements and to continually improve the quality management system

c. Provides a framework for establishing and reviewing quality objectives

d. Is communicated and understood at appropriate levels in the organization

e. Is reviewed for continuing suitability

This responsibility extends throughout all levels of the organization as it pertains to the development, implementation, communication and maintenance of the quality objectives, quality commitments, quality management system, and the needs and expectations of our customers.

It is the responsibility of Roll-Kraft’s management and associates to ensure that this policy is implemented, understood, and maintained throughout the facility.
Quality Objectives

Roll-Kraft’s management ensures that quality objectives are established at relevant functions and levels within the organization. The quality objectives are measurable and consistent with the quality policy. Quality objectives include those needed to meet requirements for product.

Quality Management System Planning

Roll-Kraft’s management ensures that the planning of the quality management system is carried out through implementation of this Quality Policy Manual and the documented processes and work instructions. These documents reflect the quality planning that has taken place, and are created and updated to reflect improvement of the systems and processes to maintain specified requirements for products, projects, or contracts as set forth in this manual, as well as the quality objectives.

When changes to the quality management system occur, the integrity of the system is maintained through functions such as project planning, document review and approval, internal quality audits and management review.

Responsibilities, Authority, and Communication

Responsibility and authority

Responsibilities and authorities are defined within the documented processes, work instructions, training records and through Roll-Kraft’s organization chart (see Appendix A). Roll-Kraft’s management ensures that responsibilities and authorities are clearly stated, effectively communicated, and understood by co-workers.
Management Representative

Roll-Kraft’s President has appointed the Director of Purchasing as the Management Representative who, irrespective of other responsibilities, has the responsibility and authority for:

a. Ensuring that processes needed for the quality management system are established, implemented, and maintained;

b. Reporting to management on the performance of the quality management system, including needs for improvement;

c. Promoting awareness of customer requirements throughout the organization.

The responsibility of a Management Representative may include liaison with external parties on matters relating to the quality management system.

Internal Communication

Roll-Kraft’s management ensures appropriate communication processes are established and that communication takes place regarding the effectiveness of the quality management system through means such as, operational meetings, management review meetings, posting of information, etc.

Management Review

General

All elements of the quality management system are reviewed at defined intervals by the Management Review Team to ensure its continuing suitability, adequacy, and effectiveness. The review includes assessing opportunities for improvement and evaluating the need for changes to Roll-Kraft’s quality management system, including the quality policy and quality objectives.

Records of the review are maintained in our manual.
Review input

Inputs to management review include performance and improvement opportunities related to the following:

- a. Results of internal audits;
- b. Customer feedback;
- c. Process performance and product conformance;
- d. Status of preventive and corrective actions;
- e. Follow-up actions from earlier management reviews;
- f. Changes that could affect the quality management system;
- g. Recommendations for improvement.

Review output

The outputs from the management review include decisions and actions related to:

- a. Improvement of the effectiveness of the quality management system and its processes;
- b. Improvement of product or services related to customer requirements;
- c. Resource needs.

RESOURCE MANAGEMENT

Provision of Resources

Roll-Kraft plans and provides the following:

- a. Resources such as, materials, equipment, information, and qualified people needed to implement, operate, and maintain the quality management system and continually improve its effectiveness;
- b. Resources needed to improve customer satisfaction by meeting customer requirements.
Human Resources

General

Roll-Kraft’s personnel performing work affecting conformity to product requirements are competent to perform their duties based on appropriate education, training, skills and experience.

Competence, awareness and training

Roll-Kraft regards the use of competent personnel to be essential in maintaining the high quality of its processes. Roll-Kraft has determined the necessary competence for personnel performing work affecting conformity to product requirements and provides training or takes other actions to satisfy these competency requirements.

Roll-Kraft ensures that its personnel is aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives, and evaluates the effectiveness of the training provided or actions taken and follows-up, as appropriate.

Appropriate records of education, training, skills and experience are maintained.

Infrastructure

Roll-Kraft identifies, supplies, and keeps in good working condition the system of facilities and equipment needed to meet product requirements and for operation of the business. This includes:

a. Buildings, work areas, and associated utilities such as, heating and cooling;
b. Process equipment (including hardware and software);
c. Transportation, communications and other support services.

Work Environment

Roll-Kraft determines and manages the work environment needed to achieve conformity to product requirements.
PRODUCT REALIZATION

Planning of Product Realization

Roll-Kraft has planned and developed the processes needed for product realization. These processes are defined and documented in Procedures/Processes and Work Instructions. Planning for the realization of product is consistent with the other processes of the quality management system and includes, as appropriate:

a. quality objectives and requirements for the product/service;

b. the need to establish processes, documents, and provide resources specific to the product;

c. required verification, validation, monitoring, inspection and test activities specific to the product/process;

d. necessary records to provide evidence that the processes and resulting product meet requirements.

Output of this planning is in a form suitable to Roll-Kraft's method of operation.

Customer-related Processes

Determination of Requirements Related to the Product

Roll-Kraft determines the following:

a. requirements provided by the customer, including requirements for delivery of the product;

b. requirements not stated by the customer but necessary for proper use, where known;

c. statutory and regulatory requirements related to the product that may apply;

d. any other requirements determined by Roll-Kraft;
Review of the Requirements Related to the Product

Roll-Kraft reviews product related requirements prior to Roll-Kraft’s commitment to supply a product to the customer (e.g., submission of quotes, acceptance of orders, acceptance of changes to agreements or orders) and ensures that:

- a. product requirements are defined,
- b. contracts or order requirements differing from those previously expressed are resolved, and
- c. Roll-Kraft has the ability to meet the defined requirements.

Records of the results of the review and actions arising from the review are maintained.

When the customer provides no documented statement of requirement, the customer requirements are confirmed by Roll-Kraft before acceptance.

When product requirements are changed, Roll-Kraft ensures that relevant documents, such as orders are amended and that relevant personnel are made aware of the changes.

Customer Communication

Roll-Kraft has implemented effective arrangements for communicating with customers in relation to:

- a. product information,
- b. inquiries, agreements or order handling, including amendments, and
- c. customer feedback, including customer complaints.

Design and Development

Design and Development Planning

Roll-Kraft plans and controls the design and development of product offerings, as appropriate.

During the design and development planning, Roll-Kraft determines:

- the design and development stages,
- the review, verification and validation that are appropriate to each design and development stage, and
- the responsibilities and authorities for design and development.
Roll-Kraft Quality Manual

Roll-Kraft manages the interfaces between different groups involved in design and development to ensure effective communication and clear assignment of responsibility.

Planning output is updated, as appropriate, as the design and development progresses.

**Design and Development Inputs**

Inputs relating to product requirements are determined and records maintained. These inputs include:

- functional and performance requirements,
- applicable statutory and regulatory requirements,
- where applicable, information derived from previous similar designs, and
- other requirements essential for design and development.

Design inputs requirements are reviewed for completeness and adequacy to ensure there are no conflicts.

**Design and Development Outputs**

The outputs of design and development activities are provided in a form that enables verification against the design and development input and are approved prior to release.

Roll-Kraft ensures design and development outputs:

- meet the input requirements for design and development,
- include appropriate information for affected areas such as purchasing and production,
- contain or reference product acceptance criteria, and
- specify the characteristics of the product that are essential for its safe and proper use.

**Design and Development Review**

Roll-Kraft ensures that at suitable stages of the design and development process, systematic reviews of design and development are performed in accordance with documented business processes

a) to evaluate the ability of the results of design and development to meet requirements, and

b) to identify any problems and propose necessary actions.

Participants in these reviews include representatives of areas or departments concerned with the design and development stage(s) being reviewed. Records of the results of the reviews and any necessary actions are maintained.
Design and Development Verification

Roll-Kraft performs verification activities according to defined business processes to ensure that the design and development outputs have met the design and development input requirements. Records of the results of the verification and any necessary actions are maintained.

Design and Development Validation

Validation of design and development activities are performed in accordance with documented business processes to ensure that the resulting product is capable of meeting the requirements for the specified application or intended use, where known. Wherever practicable, validation is completed prior to the delivery or implementation of the product and includes the customer. Records of the results of validation and any necessary actions are maintained.

Control of Design and Development Changes

Roll-Kraft identifies and records design and development changes. These changes are reviewed, verified and validated, as appropriate, and approved before implementation. The review of design and development changes includes evaluation of the effect of the changes on constituent products and those already delivered.

Records of the results of the review of changes and any necessary actions are maintained.

PURCHASING

Purchasing Process

Roll-Kraft ensures that purchased product conforms to specified purchase requirements.

The type and extent of control exercised by Roll-Kraft on suppliers is dependent on the type of product being purchased, the impact of the purchased product on subsequent product realization or final product, and when applicable, the supplier's demonstrated capability and performance.

Roll-Kraft evaluates and selects suppliers based on their ability to meet Roll-Kraft's requirements. Supplier evaluation, selection and re-evaluation criteria are established.

Procured products and services are purchased from suppliers that are included on the approved suppliers list, which is updated as required. Records of vendor evaluation and any necessary actions are maintained.
Purchasing Information

Purchasing documents clearly describe the products and services being ordered. Purchase documents and specifications convey the requirements of Roll-Kraft. Applicable information regarding requirements for approval of product, procedures, processes, and equipment, part number or other precise identification such as: title, description, specifications, qualification criteria, inspection instructions, other relevant technical data, and the title, number, and issue of the quality management system standard (if applied) are defined in these documents.

Approved buyers review and approve purchasing documents for accuracy and adequacy of specified requirements prior to release.

Verification of Purchased Product

Roll-Kraft has established and implemented the inspection or other receiving activities necessary for ensuring that purchased product meets specified requirements.

If Roll-Kraft or its customers are to require its suppliers to allow verification of purchased product at the supplier’s facility, Roll-Kraft specifies the verification arrangements and the method of product release in the purchasing documentation.

Production and Service Provision

Control of Production and Service Provision

Roll-Kraft plans and carries out production under controlled conditions including, as applicable:

a. the availability of information that describes the characteristics of the product,
b. the availability of work instructions, as necessary,
c. the use of suitable equipment,
d. the availability and use of monitoring and measuring devices,
e. the implementation of monitoring and measurement, and
f. the implementation of release and delivery requirements.

Validation of Processes for Production and Service Provision

Roll-Kraft validates any processes that cannot be verified by monitoring or measurement. This includes any processes where deficiencies become apparent only after the product is in use. This validation demonstrates the ability of these processes to achieve Roll-Kraft’s planned results.
Roll-Kraft has established arrangements for these processes which includes, as applicable:

a. defined criteria for review and approval of the processes,
b. approval of equipment and qualification of personnel,
c. use of specific methods and procedures,
d. requirements for records, and
e. revalidation.

**Identification and Traceability**

Where appropriate, Roll-Kraft identifies the product by suitable means from receiving through shipping. Product identification is accomplished through methods such as, labeling, tagging, location, etc.

Roll-Kraft also identifies the product status with respect to monitoring and measurement requirements.

Roll-Kraft controls and records the unique identification of product, where traceability requirements apply.

**Customer Property**

Roll-Kraft exercises care with customer property while it is under our control or being used by the organization. Roll-Kraft takes care to identify, verify, protect and safeguard customer property provided for use or incorporation into the product.

If any customer property is lost, damaged, or otherwise found to be unsuitable for use, it is reported to the customer and records are maintained.

**Preservation of Product**

Roll-Kraft ensures preservation of the conformity of product during internal processing and delivery to the intended destination. This preservation includes identification, handling, packaging, storage and protection, with preservation requirements also applied to the constituent parts of a product, where appropriate.

**Control of Monitoring and Measuring Equipment**

Roll-Kraft determines the monitoring and measurement to be undertaken and the monitoring and measuring equipment needed to provide evidence of conformity of product to determined requirements. Documented procedures ensure that monitoring and measurement can be carried out and are carried out in a manner that is consistent with the monitoring and measurement requirements.
Where necessary to ensure valid results, measuring equipment is

a. calibrated or verified at specified intervals, or prior to use, against measurement standards traceable to international or national measurement standards; where no such standards exist, the basis used for calibration or verification shall be recorded;
b. adjusted or re-adjusted as necessary;
c. identified to enable the calibration status to be determined;
d. safeguarded from adjustments that would invalidate the measurement result;
e. protected from damage and deterioration during handling, maintenance and storage.

Roll-Kraft also assesses and records the validity of the previous measuring results when the equipment is found not to conform to requirements and takes appropriate action on the equipment and any product affected. Records of the results of calibration and verification are maintained.

When used in the monitoring and measurement of specified requirements, the ability of computer software to satisfy the intended application is confirmed prior to initial use and reconfirmed as necessary.

**Measurement, Analysis and Improvement**

**General**

Roll-Kraft plans and implements the monitoring, measurement, analysis and improvement processes needed to:

a. to demonstrate conformity of the product,
b. to ensure conformity of the quality management system, and
c. to continually improve the effectiveness of the quality management system.

This includes the determination of the applicable methods, including statistical techniques, and the extent of their use.

**Monitoring and Measurement**

**Customer Satisfaction**

Roll-Kraft monitors information relating to customer perception, as to whether Roll-Kraft has met customer requirements, as one of the measures of the performance of the quality management system. Methods for obtaining and using this information are defined in documented procedures.
Internal Audit

Roll-Kraft conducts internal audits to determine whether the quality system:

a. is effectively implemented and maintained.

The audit program takes into consideration the status and importance of the processes and areas to be audited, as well as the results of previous audits. The audit criteria, scope, frequency and methods are defined. The selection of auditors and conduct of audits ensures objectivity and impartiality of the audit process and selected auditors do not audit their own work.

Roll-Kraft’s management is responsible for the area being audited and ensures that actions are taken without undue delay to eliminate detected nonconformities and their causes. Follow-up activities include the verification of the corrective actions taken and the reporting of verification results.

Monitoring and Measurement of Processes

Roll-Kraft applies suitable methods for monitoring and, where applicable, measuring the performance of the processes that make up the quality management system. These methods confirm the continuing ability of each process to achieve the planned results. When the planned results are not achieved, correction and corrective action are taken, as appropriate, to ensure product/service conformity.

Monitoring and Measurement of Product

Roll-Kraft monitors and measures product characteristics to verify product requirements. This monitoring and measurement is carried out at appropriate stages of the product/service realization process in accordance with the planned arrangements.

Records of conformity with the determined acceptance criteria, including the person authorizing release of the product/service, are maintained.

Roll-Kraft ensures that product release does not proceed until the planned arrangements have been satisfactorily completed, unless otherwise approved by a relevant authority and, where applicable, by the customer.
Control of Nonconforming Product

Roll-Kraft ensures that product which does not conform to product requirements is identified and controlled to prevent its unintended use or delivery. The controls and related responsibilities and authorities for dealing with nonconforming product are defined in a documented procedure.

Roll-Kraft deals with nonconforming product by one or more of the following ways:

a. by taking action to eliminate the detected nonconformity;

b. by authorizing its use, release or acceptance under concession by a relevant authority and, where applicable, by the customer;

c. by taking action to preclude its original intended use or application.

When nonconforming product/service is corrected, it is subject to re-verification to demonstrate conformity to the requirements.

When nonconforming product/service is detected after delivery or use has started, Roll-Kraft takes action appropriate to the effects, or potential effects, of the nonconformity.

Records of the nature of nonconformities and any subsequent actions taken, including concessions obtained, are maintained.

Analysis of Data

Roll-Kraft determines, collects, and analyzes appropriate data to demonstrate the suitability and effectiveness of the quality management system and to evaluate where continual improvement of the effectiveness of the quality management system can be made. This includes data generated as a result of monitoring and measurement and from other relevant sources.

The data collected and analyzed by Roll-Kraft includes, but is not limited to:

a. Customer satisfaction

b. Conformity to product requirements

c. Characteristics and trends of processes and products including opportunities for preventive actions;

d. Suppliers;

e. Internal audit findings;

f. Data to support business objectives and improvements from management review.
Improvement

Continual Improvement

Roll-Kraft facilitates the continual improvement of the quality management system through the use of the quality policy, quality objectives, audit results, data analysis, corrective and preventive actions and management reviews.

Corrective Action

Roll-Kraft takes action to eliminate the cause of identified nonconformities in order to prevent recurrence. Corrective actions are appropriate to the effects of the nonconformities encountered.

Roll-Kraft maintains a documented procedure defining requirements for:

a. reviewing nonconformities (including customer complaints)
b. determining the causes of nonconformities,
c. evaluating the need for action to ensure that nonconformities do not recur,
d. determining and implementing action needed,
e. records of the results of action taken, and
f. reviewing corrective action taken.

Preventive Action

Roll-Kraft maintains a documented system for investigation and effective implementation of preventive actions to eliminate the cause of potential nonconformities in order to prevent their occurrence.

Preventive actions are developed appropriate to the effects of potential problems. Relevant information on preventive actions taken is submitted for management review.

A documented procedure is established to accomplish the following:

a. determining potential nonconformities and their root causes,
b. evaluating the need for preventive action to prevent the occurrence of nonconformities,
c. determining and implementing preventive action,
d. maintaining records of the results of preventive actions taken as per Section 4.2.4 of this manual, and
e. reviewing preventive actions taken.
Appendix B

Process Interaction Diagram

Core Processes:

Customer

Quoting BP-01

Order Receipt, Review and Processing BP-02

Tooling Design and Development BP-03

Purchasing BP-04

Production BP-06

Receiving BP-05

Shipping BP-07

Technical Services BP-08

Customer
Support Processes:

Resource Management
Maintenance BP-17
Competency and Training BP-09

Information Management
Control of Documents BP-10
Control of Records BP-11

Monitoring and Measurement
Calibration BP-18
Control of Nonconforming Product BP-12
Internal Audits BP-13
Corrective Action BP-14
Preventive Action BP-15
Management Review BP-16