

# **Chalmers & Kubeck, Inc.**

**150 Commerce Drive**

**Aston, PA 19014**

**(610) 494-4300**

## **Quality System Manual**

**ISO 9001:2008**

**Control #:00**

**Rev. 6**

**(05-01-14)**

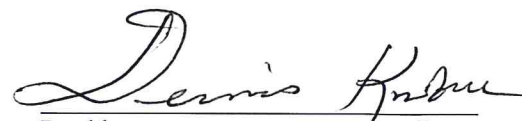
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 3-1-14  
Quality Manager Date

 5/1/14  
President Date

 5/1/14  
General Manager Date

# **Chalmers & Kubeck, Inc.**

## **Quality System**

### **Manual**

## **Scope**

Chalmers & Kubeck Inc. is a job shop that performs new manufacturing and repairs. We assist OEM companies with new manufacturing, and also the repair or refurbishing of worn parts and assemblies. Our major fields of expertise are as follows:

- Machining and Manufacturing of New Parts and Assemblies
- Gear Box Repair
- Machining and Manufacturing of New Gears
- Pump Repair and Overhaul
- Repair of Reciprocating and Rotating Equipment
- Turbine Equipment
- Fabrication and Welding
- Engineering Support
- Thermal Spray

Chalmers & Kubeck, Inc. has established, documented, implemented and maintains a third party registered Quality Management System in accordance with ISO 9001 requirements.



**Chalmers & Kubeck, Inc.**

# **Quality System Manual Master List**

<u>Control Number</u>	<u>Assigned To</u>	<u>Area</u>	<u>Revision Level/Date</u>
00	John Pristash	Quality Manager	Rev.6 / 05-01-14

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<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.1</b>
SUBJECT: <b>MANAGEMENT RESPONSIBILITY</b>	Page: 1 of 3
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## 1.0 Management Commitment

Executive Management shall provide evidence of its commitment to the quality management system and continually improving its effectiveness by:

- a) Communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements.
- b) Establishing the quality policy and quality objectives.
- c) Conducting management reviews.
- d) Ensuring the availability of resources.
- e) Maintaining customer focus to ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction.

## 2.0 Quality Policy

*To exceed customer expectations by continuously improving the effectiveness of the Quality Management System through management leadership, employee involvement and compliance with ISO 9001:2008 requirements.*

Executive Management is responsible for ensuring the Quality Policy and Quality Objectives are communicated, understood and implemented at all levels throughout the organization.

## 3.0 Quality Objectives

- To provide products and services which satisfy customers needs, expectations and requirements;
- Continual improvement of the products and services, processes and Quality Management System within Chalmers & Kubeck;
- Ensure an environment where people are fully involved through provision of adequate resources;
- Ensure continued suitability of the Quality Policy, Quality Objectives and Quality Management System through Management Reviews.

## 4.0 Organization

### 4.1 Resources

**4.1.1** Executive Management is responsible for identifying resource requirements and to provide necessary resources, work environment and infrastructure including the assignment of competent personnel, for management, performance of work, and verification activities.

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**4.1.2** Department Managers and Foremen are responsible for determining the necessary competence of personnel performing work affecting conformity to product requirements. Competence shall be determined based on appropriate education, training, skills and experience. Responsibilities, Duties and Qualifications are determined through use of Position Descriptions (PD – Section 6) and the Organizational Chart (OrgChart).

**4.1.3** Executive Management shall ensure that communication processes are established within the organization and that communication takes place regarding the effectiveness of the Quality Management System. This shall be accomplished through employee ISO Training, Internal Quality Audits, Management Reviews, Nonconformance Reports, and the organization intranet.

## **4.2 Quality Management System Planning**

**4.2.1** Executive Management shall ensure that the planning of the quality management system is carried out in order to meet the requirements of the ISO 9001:2008 standard, as well as the company quality objectives. And, that the integrity of the quality management system is maintained when changes to the quality management system are planned and implemented.

**4.2.2** Outsourced processes shall be controlled per CK-4.6 (Purchasing).

## **4.3 Management Representative**

**4.3.1** The Management Representative in conjunction with the Quality Manager are responsible for the Quality Management System; responsible for:

- ensuring that a Quality Management System is established, implemented, and maintained in accordance with ISO 9001:2008;
- reporting on the performance of the Quality Management System to Executive Management for review and as a basis for continuous improvement of the Quality Management System;
- ensuring the promotion of awareness of customer requirements throughout the organization.

**4.3.2** The Quality Manager has the full authority of the President to enforce adherence to the Company's Quality Management System.

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## **5.0 Management Review**

The Management Representative ensures that Executive Management reviews the Quality Management System twice per calendar year to verify its continuing suitability, adequacy and effectiveness. Records of these reviews shall be documented using the Executive Management Review Checklist (MRCKList) and maintained per CK-4.16, Control of Quality Records.

## **6.0 References**

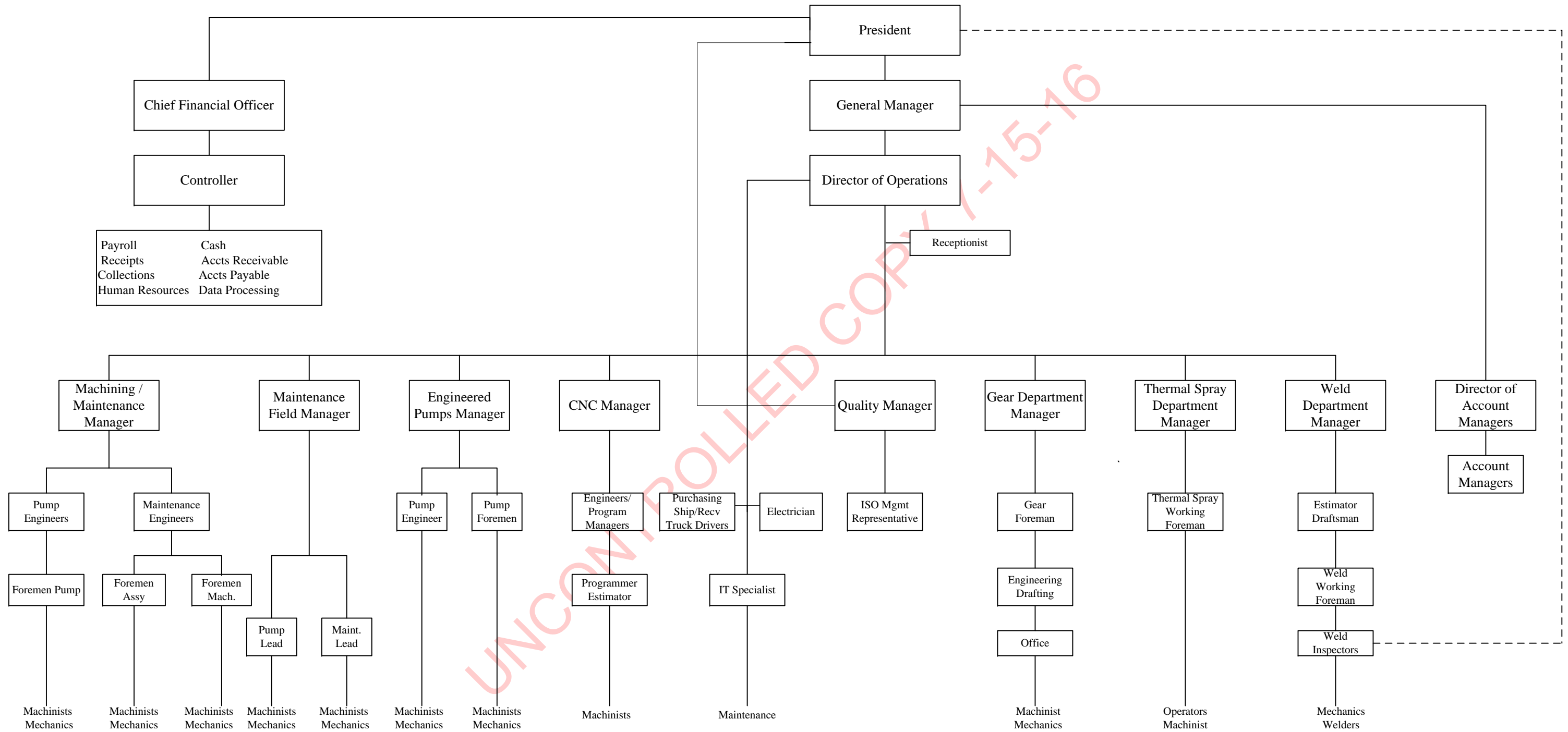
ISO 9001:2008 Clause 5 - Management Responsibility  
Position Descriptions (PD- Section 6)  
Organizational Chart (OrgChart)  
Executive Management Review Checklist (MRCKList)

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# Chalmers & Kubeck, Inc.

## Organizational Chart



*Chalmers & Kubeck Inc.*

**Executive Management Review Checklist**

**Date:**

**Attendees:**

● ***Management Review Inputs:***

● Results of Internal/External Quality Audits:

● Customer Feedback:

● Process Performance and Product Conformity:

● Status of Preventive and Corrective Actions:

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## *Chalmers & Kubeck Inc.*

### **Executive Management Review Checklist**

- Follow- up Actions from previous Management Reviews:
- Changes that could affect the Quality Management System:
- Recommendations for Improvement:
- Suitability of Existing Quality Policy and Quality Objectives:
- Review Effectiveness of Existing Quality Management System:

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## *Chalmers & Kubeck Inc.*

### **Executive Management Review Checklist**

- ***Management Review Outputs: (Decisions and Actions to be Taken Related To:)***
  - Improvement of the Effectiveness of the Quality Management System and Its Processes:
  - Improvement of Product Related to Customer Requirements:
  - Resource Needs:
  - Conclusions:

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SUBJECT: <b>QUALITY MANAGEMENT SYSTEM</b>	Page: 1 of 2
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## 1.0 Purpose

- The realization of products and services the quality of which satisfy customer needs, expectations and requirements;
- To provide confidence to our customers in Chalmers & Kubeck, Inc. ongoing capability to satisfy their requirements.

## 2.0 Scope

The Quality Management System refers to all activities within Chalmers & Kubeck, Inc. which relate to quality, including products and services, processes, operations and customer satisfaction.

## 3.0 Responsibility

- 3.1 Executive Management is responsible for effectively implementing the Quality Management System.
- 3.2 Executive Management shall ensure the integrity of the Quality Management System when changes to the Quality Management System are planned and implemented.
- 3.3 The Quality Manager is responsible for maintaining and revising the Quality System Manual.
- 3.4 Quality Planning is carried out by ensuring that **all employees** follow the Work Order, the Procedures/Process Maps and Work Instructions as identified in the Quality System Manual.
- 3.5 Department Managers, Foreman and Estimators are responsible for planning and carrying out production and servicing under controlled conditions. Controlled conditions shall include, 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 equipment;
  - e) the implementation of monitoring and measurement;
  - f) the implementation of product release, delivery and post-delivery activities.

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#### **4.0 Documentation of the Quality System**

The Quality Management System documentation consists of the following:

- a) statement of Quality Policy and Quality Objectives;
- b) the Quality Manual;
- c) documented procedures and records required by the latest revision of the ISO standard;
- d) documents, including records determined by Chalmers & Kubeck, Inc. to be necessary to ensure the effective planning, operation and control of its processes;

#### **5.0 References**

Clause 4.0 of ISO 9001:2008 Quality Management System  
Quality System Matrix (QSMTRX)  
Quality System Process Matrix (QSPMTRX)

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# Chalmers & Kubeck, Inc.

## Quality Management System Matrix

C&K Process No.	CUSTOMER	QUALITY MGR and/or ISO MGMT REP	DEPARTMENTS	GENERAL MANAGER	SALES AND MARKETING	FINANCE AND ADMINISTRATION
4.1		MANAGEMENT RESPONSIBILITY				
4.2	△	QUALITY MANAGEMENT SYSTEM	⊗	⊗	⊗	
4.3	⊗		CONTRACT REVIEW			⊗
4.4			DESIGN & DEVELOPMENT			
4.5		DOCUMENT CONTROL			⊗	
4.6		PURCHASING				
4.7	△		CUSTOMER PROPERTY			
4.8			IDENTIFICATION & TRACEABILITY			
4.9		CONTROL AND VALIDATION - PRODUCT & SERVICE PROVISION				
4.10			MONITORING & MEASUREMENT			
4.11		CONTROL MONITOR/ MEASURING DEVICES				
4.12			MONITOR/MEAS STATUS OF PRODUCT			
4.13		CONTROL OF NONCONFORMING PRODUCT				△
4.14	△	CORRECTIVE & PREVENTIVE ACTION				
4.15	△		PRESERVATION OF PRODUCT			
4.16		CONTROL OF QUALITY RECORDS				
4.17		INTERNAL QUALITY AUDITS	⊗	⊗	⊗	
4.18		COMPETENCE, AWARENESS AND TRAINING				



= Major Contributor



= Receives output



= Lead Responsibility

**Chalmers & Kubeck, Inc.**  
Quality System Manual Section

<b>PROCESS MATRIX</b>	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	4.12	4.13	4.14	4.15	4.16	4.17	4.18	DEF	PD
<b>Executive Management</b>	●	●							●					●					●	●
<b>Quality Manager</b>	●	●	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Information Services</b>																		●	●	
<b>General Manager</b>	●	●	●	●	●	●			●	●						●		●	●	●
<b>Purchasing</b>		●			●	●		●					●	●	●			●	●	
<b>Department Manager</b>		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
<b>Working Foreman / Estimator</b>		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			●	●
<b>Machinist, Mechanic, Welder</b>		●			●			●	●	●	●	●	●		●				●	●
<b>Shipping &amp; Receiving, Truck Driver</b>		●			●			●	●				●		●				●	●
<b>Account Managers</b>		●	●	●	●														●	●



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<b>Quality System Manual</b>		<b>CK-4.3</b>
SUBJECT: <b>CONTRACT REVIEW</b>		Page: 1 of 2
Reason for Revision: General review and update.		Rev. 2 02-07-14

## **1.0 Purpose**

- 1.1** Before submission of a tender, or at the acceptance of a contract or order the tender, contract, or order will be reviewed to determine:
- a) requirements, terms and conditions specified by the customer, including the requirements for delivery and post delivery activities are adequately defined and understood  
(current revision levels of applicable documents are available and legible);
  - b) any differences between the contract or order requirements and those in the tender are resolved;
  - c) Chalmers & Kubeck, Inc. has the ability to meet the defined requirements, including the requirements for delivery and post-delivery activities;
  - d) Statutory and Regulatory requirements applicable to the product are met;
  - e) requirements not stated by the customer but necessary for specified or intended use, where known;
  - f) any additional requirements considered necessary.
- 1.2** Amendments/changes to existing orders are processed as in Paragraph 1.1 above and correctly relayed to the appropriate functions per Work Order Work Instructions (WOWI-4.3 - paragraph 6).

## **2.0 Scope**

This procedure applies to quotation development and any resulting contract.

## **3.0 Responsibility**

- 3.1** Department Managers are responsible for preparing quotations for blanket contracts and purchase orders; completing Work Orders, per Work Order Work Instructions (WOWI-4.3); completing the Job Number Log entry; reviewing blanket contracts, purchase orders and amendments/changes, documenting the review and relaying changes to the appropriate personnel.
- 3.2** The Foremen and Estimators are responsible for preparing quotations for purchase orders, completing Work Orders, per Work Order Work Instructions (WOWI-4.3), completing the Job Number Log entry, reviewing purchase orders and amendments/changes, documenting the review and relaying changes to the appropriate personnel.

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**3.3** Contract/purchase order review records are maintained per CK-4.16, Control of Quality Records. The completed Work Order and/or approved blanket contract shall serve as objective evidence of Contract/Purchase Order review.

**3.4** Where the customer provides no documented statement of requirement, the customer requirements shall be confirmed before acceptance. Confirmation shall be accomplished by mail, e-mail or fax. Verbal confirmation may be used as a last resort.

#### **4.0 References**

Clause 7.2 of ISO 9001:2008 Customer Related Processes  
Blanket Order Contract Review Process Map (PM-4.3a)  
Purchase Order Contract Review Process Map (PM-4.3b)  
Work Order  
CompGen WO  
Work Order Work Instructions (WOWI-4.3)

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Chalmers & Kubeck, Inc.  
Quality System Manual

Procedure No.

**PM-4.3a**

SUBJECT:

**CONTRACT REVIEW - BLANKET CONTRACTS**

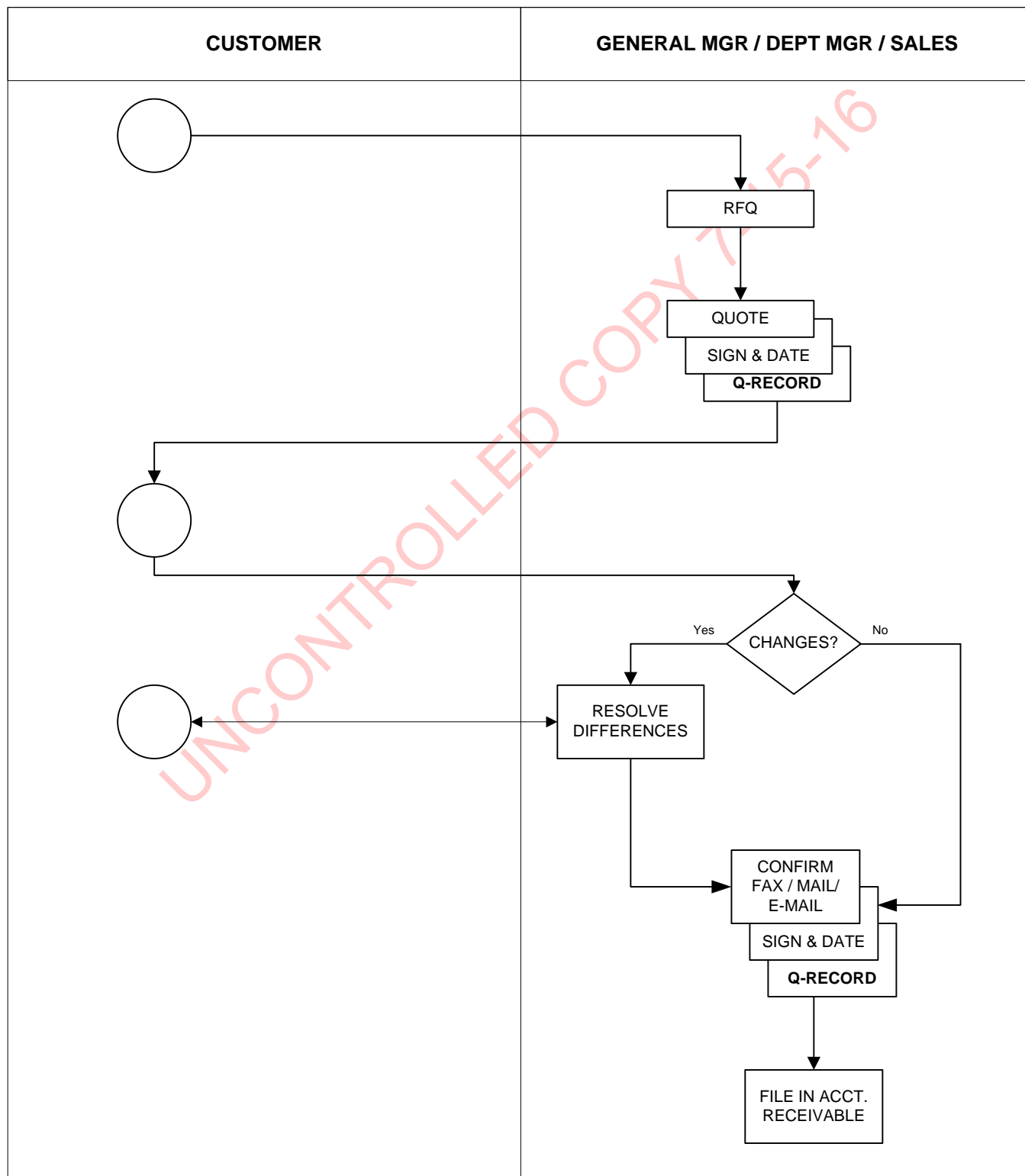
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09-01-09



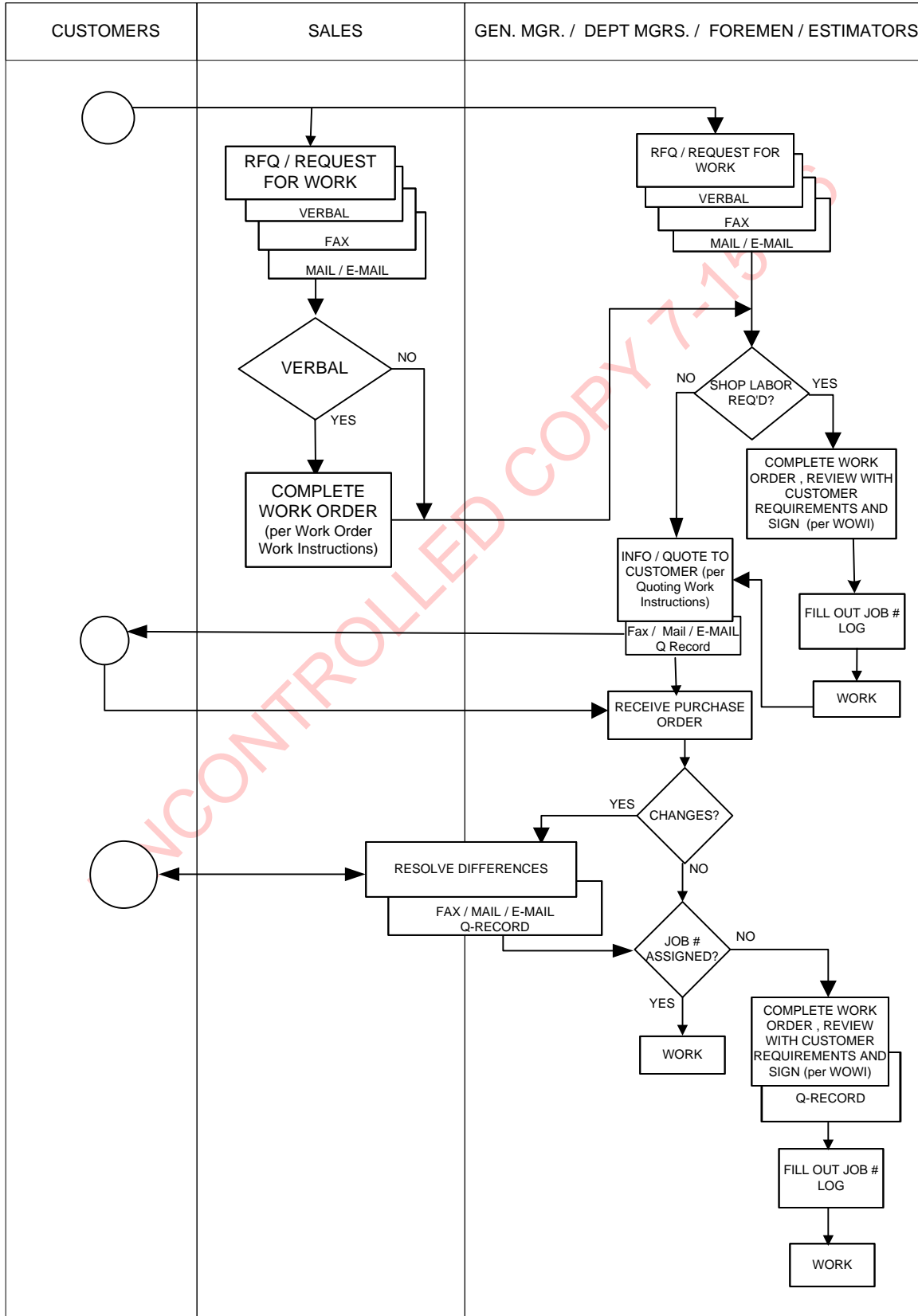
SUBJECT:

**CONTRACT REVIEW - PURCHASE ORDERS**

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Reason for Revision: Revise to ISO 9001:2008 requirements.

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SUBJECT: <b>WORK ORDER WORK INSTRUCTIONS</b>	Page 1 of 3
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## Work Instructions for completing Work Orders

- 1.0** The Work Order is a Quality Record.
- 2.0** There are 4 types of Work Orders:
- 2.1 Quote only
  - 2.2 Disassemble & Quote
  - 2.3 Time & Material
  - 2.4 Breakdown
- 3.0** A Work Order shall be prepared for all work done for a customer.
- 3.1 If the quotation is accepted by the customer the Chalmers & Kubeck formal quote and the Chalmers & Kubeck Work Order shall be retained in the Job File. The Job Work Order shall be distributed per 5.0 below.
  - 3.2 Changes
    - 3.2.1 All work scope changes **from the Customer** require that the Department Manager make the necessary changes to the Job File Work Order (See 6.0 Below).
    - 3.2.2 All Work Scope changes **initiated by Chalmers & Kubeck** shall be mailed, e-mailed or faxed to the Customer and placed in the Job File (See 6.0 Below).

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#### 4.0 Work Order preparation instructions:

##### 4.1 Instructions for Department Managers, Foremen and others- Shall complete the following **Mandatory Fields** on the Work Order:

- 4.1.1 Type of Work Order block (top right corner) <check one>
- 4.1.2 Job Number: <determined by job log book>
- 4.1.3 Chg. #: if appropriate
- 4.1.4 Job Date: <current date>
- 4.1.5 Rush? <Yes or No>
- 4.1.6 Customer: <customer company name>
- 4.1.7 Customer ID: <setup by C&K accounting department>
- 4.1.8 Purchase Order: <customer supplied Purchase Order Number>
- 4.1.9 Cust. Contact: <contact name>
- 4.1.10 Phone: <customer contact>
- 4.1.11 Due Date / or Weeks ARO
- 4.1.12 Qty: <specified in customer Purchase Order>
- 4.1.13 Work Scope: <operations and/or job activities>
- 4.1.14 Department Assigned: <check appropriate department>
- 4.1.15 Material and / or outside services required <No or Yes>
- 4.1.16 Contract Reviewed By: <sign and date>

##### 4.2 If the Mandatory Information is not available at time of Work Order initiation the field shall be marked with TBD (To Be Determined) until such time as the information becomes available.

#### 5.0 Work Order snap set distribution:

- 5.1 Office Control Copy to General Manager (White)
- 5.2 Scheduling copy to Shipping (Yellow)
- 5.3 Job File copy to Department job file (Blue)
- 5.4 Job Traveler copy goes with job or maintained in the job file (Pink)
- 5.5 Purchase Order File copy to Billing (Green)

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## 6.0 Amendments / Changes to a Work Order

- 6.1 Amendments/ Changes to the Work Order will be reviewed to ensure that:
- a) the requirements are adequately defined and understood (current revision levels of applicable documents are available and legible);
  - b) any differences between the amendment requirements and those on the Work Order are resolved;
  - c) Chalmers & Kubeck, Inc. has the ability to meet the defined requirements, including requirements for delivery and post delivery activities;
  - d) Statutory and Regulatory requirements related to the product are met
- 6.2 Amend / Change Work Order in Job File.
- 6.3 Enter the Change # in the block to the right of the Job Number.
- 6.4 Enter the Changed information only.
- 6.5 Change Reviewed By: sign and date.

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<b>Quality System Manual</b>		<b>CK-4.4</b>
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<b>DESIGN AND DEVELOPMENT</b>		1 of 2
Reason for Revision: Revise to ISO 9001:2008 requirements.		Rev. 1
		09-01-09

## 1.0 Purpose

To ensure Chalmers & Kubeck, Inc. Design and Development activities are effectively planned and controlled to satisfy the needs and expectations of its customers.

## 2.0 Scope

This procedure applies to all Design and Development activities requested by the customer or suggested by Chalmers & Kubeck, Inc. Engineering. These activities shall include planning, product requirement inputs, design and development outputs, review, verification, validation and control of changes.

## 3.0 Responsibility

Engineering shall be responsible for all Design and Development activities. Design and Development activities shall be documented using Design and Development Record (DDR-1). Engineering shall request additional resources and support as required to perform these activities and shall manage the interfaces between the different groups involved to ensure effective communication and clear assignment of responsibility. Outsourced Design and Development activities shall be documented using Outsourced Design and Development Record (ODDR-1).

- 3.1** Design and Development Planning shall be carried out in accordance with customer requirements. Planning shall follow the outline detailed in this procedure.
- 3.2** Design and Development Inputs shall be reviewed for adequacy and records of the review maintained per CK-4.16. Requirements shall be complete, unambiguous and not in conflict. Reviews shall include as appropriate:
- functional and performance requirements
  - applicable statutory and regulatory requirements
  - information derived from previous similar designs
  - other requirements essential for design and development.
- 3.3** Design and Development Outputs shall be provided in a form suitable for verification against the design and development input and shall be approved prior to release. Outputs shall:
- meet the input requirements for design and development;
  - specifications of the characteristics of the product essential for its safe and proper use;
  - provide appropriate information for purchasing, production and servicing provision;
  - contain or reference product acceptance criteria.

<b>Chalmers &amp; Kubeck, Inc.</b>		Process No.
<b>Quality System Manual</b>		<b>CK-4.4</b>
SUBJECT:	<b>DESIGN AND DEVELOPMENT</b>	Page: 2 of 2
Reason for Revision: Revise to ISO 9001:2008 requirements.		Rev. 1 09-01-09

- 3.4** Design and Development Review shall be conducted at appropriate stages as determined by Engineering. Reviews shall include all affected functions including the customer when necessary. Records of the review shall be maintained per CK-4.16. The Review shall:
- evaluate the ability of the results of design and development to meet requirements;
  - identify problems and propose necessary actions
- 3.5** Design and Development Verification shall be performed to ensure that the design and development outputs have met the requirements of the design and development inputs. Records of verification shall be maintained per CK-4.16. Verification shall include the following as appropriate:
- comparison of new design with a similar, proven design;
  - alternative calculations or methods;
  - testing, simulations or trials to check compliance with specific input requirement;
  - review of the design documents prior to release.
- 3.6** Design and Development Validation shall be performed to ensure that the resulting product is capable of meeting the requirements for the specified application or intended use. Where practical, validation shall be completed prior to the delivery or implementation of the product. Records validation shall be maintained per CK-4.16.
- 3.7** Design and Development Changes shall be identified, documented, reviewed and approved by engineering prior to their realization using the Design and Development Change Record (DDCR-1). The review of design and development changes shall include the following activities as appropriate:
- identification of the design and development changes;
  - maintenance of records of the identified changes per CK-4.16;
  - review, verification and validation of changes as appropriate;
  - evaluation of the changes on constituent parts;
  - evaluation of the effect of the changes on product already delivered;
  - approval of changes before implementation.
- 3.8** Drawings and drawing changes shall be controlled per CK-4.5 Document Control.

#### **4.0 References**

Clause 7.3 of ISO 9001:2008  
Design and Development Process Map (PM-4.4)  
Design and Development Record DDR-1  
Outsourced Design and Development Record ODDR-1  
Design and Development Change Record DDCR-1

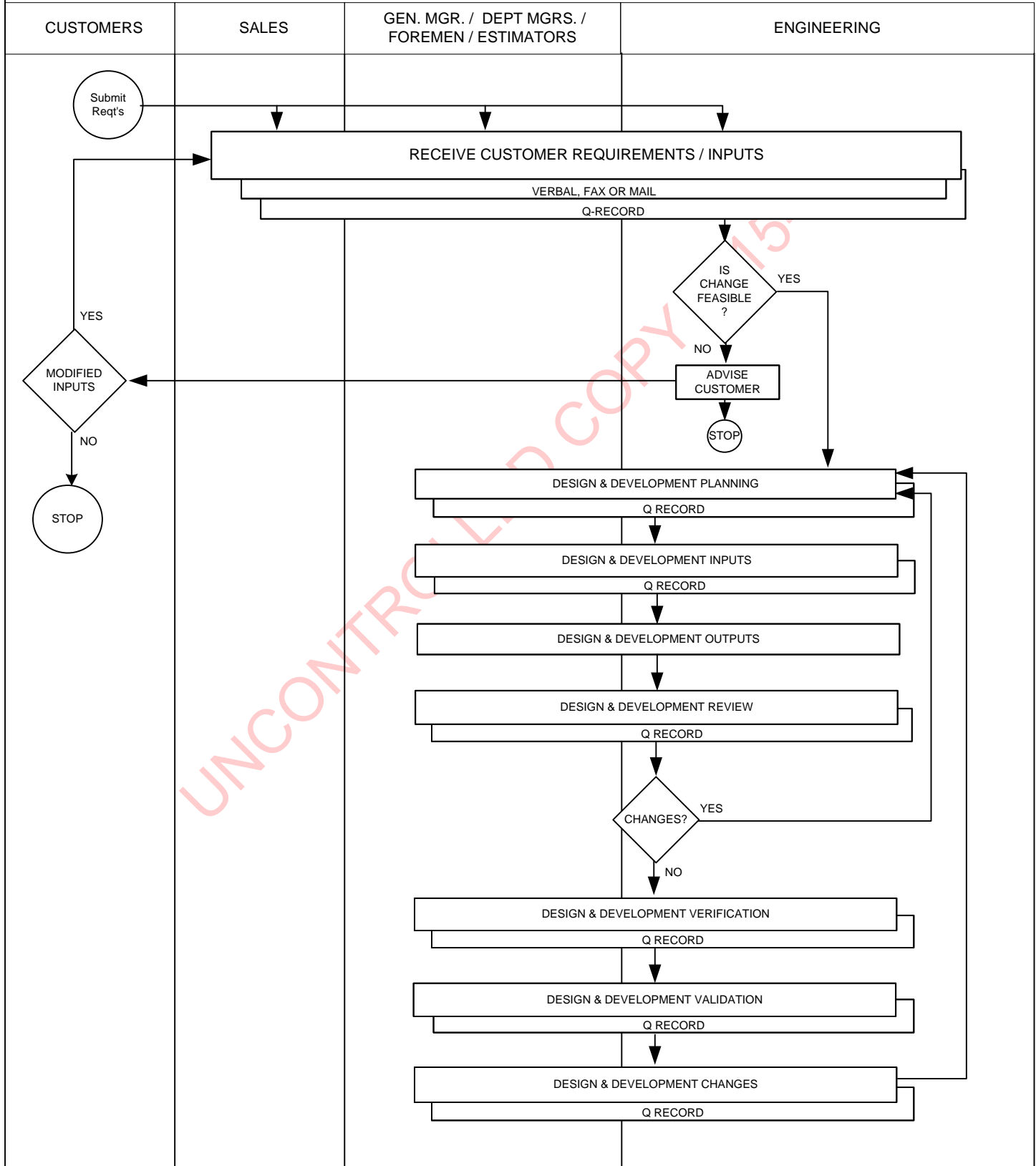
SUBJECT:

**DESIGN AND DEVELOPMENT**

Page:  
1 of 1

Reason for Revision:

Rev.  
10-01-02





<b>Chalmers &amp; Kubeck, Inc.</b> Department: _____	<b>Design and Development Record</b>	<b>Job Number:</b> _____
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Customer Name: _____	Contact: _____
Job Description: _____	Customer Required Date: _____
Drawing / Part #: _____	Rev: _____ Serial No.: _____
<b>Design Scope:</b> (attach customer requirement sheets) _____ _____ _____	

<b>Design &amp; Development Inputs:</b>		Customer Supplied: _____	C&K Supplied: _____	
	By	Date	By	Date
● Functional and Performance Requirements: _____				
_____				
_____				
● Applicable Statutory and Regulatory Requirements: _____				
_____				
_____				
● Other Information / Previous Designs: _____				
_____				
_____				
Authorized By: _____		Dept. Manager: _____		Date
Date		Sales: _____		Date

<b>Design &amp; Development Outputs:</b>				
● Drawings / Sketches: <input type="checkbox"/> Yes <input type="checkbox"/> No _____				
_____				
● Specifications for Safe and Proper Use: <input type="checkbox"/> Yes <input type="checkbox"/> No _____				
_____				
● Purchasing, Production & Servicing Information Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No _____				
_____				
● Product Acceptance Criteria Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No _____				
_____				
_____				
Authorized By: _____		Dept. Manager: _____		Date
Date		Sales: _____		Date

<b>Design &amp; Development Review:</b>				
● Ability of Design & Development to Meet Requirements: <input type="checkbox"/> Yes <input type="checkbox"/> No _____				
_____				
● Identify Problems and Propose Necessary Actions: <input type="checkbox"/> Yes <input type="checkbox"/> No _____				
_____				
_____				
Authorized By: _____		Dept. Manager: _____		Date
Date		Sales: _____		Date

**Design & Development Verification:**

●Review of Design Documents Prior to Release:  Yes  No \_\_\_\_\_

●Comparison of New Design with a Similar Proven Design:  Yes  No \_\_\_\_\_

●Alternative Calculations or Methods:  Yes  No \_\_\_\_\_

●Testing, Simulations or Trials to Check Compliance with Specific Input Requirements:  Yes  No \_\_\_\_\_

Authorized By: \_\_\_\_\_  
Date

Dept. Manager: \_\_\_\_\_

Sales: \_\_\_\_\_  
Date

**Design & Development Validation:**

●Product Meets Requirements for Intended Application or Use:  Yes  No \_\_\_\_\_

Authorized By: \_\_\_\_\_  
Date

Customer Approval: \_\_\_\_\_  
Date

**Action Items / Supporting Records (attach):**

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<b>Chalmers &amp; Kubeck, Inc.</b> Department: _____	<b>Design and Development Change Record</b>	<b>Job Number:</b> _____
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Customer Name: _____	Contact: _____
Job Description: _____	Customer Required Date: _____
Drawing / Part #: _____	Rev: _____ Serial No.: _____
<b>Design Change Scope:</b> (attach customer requirement sheets) _____	
_____	
_____	

<b>Identification of Design Change:</b> Customer Supplied: _____		C&K Supplied: _____	
By	Date	By	Date
● Functional and Performance Requirements: _____			
_____			
_____			
● Applicable Statutory and Regulatory Requirements: _____			
_____			
_____			
● Other Information / Previous Designs: _____			
_____			
_____			
Authorized By: _____		Department Manager: _____	
Date	Date	Date	Date
Sales: _____		Sales: _____	
		Date	

<b>Design &amp; Development Outputs:</b>			
● Drawings / Sketches: <input type="checkbox"/> Yes <input type="checkbox"/> No _____			
_____			
● Specifications for Safe and Proper Use: <input type="checkbox"/> Yes <input type="checkbox"/> No _____			
_____			
● Purchasing, Production & Servicing Information Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No _____			
_____			
● Product Acceptance Criteria Provided: <input type="checkbox"/> Yes <input type="checkbox"/> No _____			
_____			
Authorized By: _____		Department Manager: _____	
Date	Date	Date	Date
Sales: _____		Sales: _____	
		Date	

<b>Design &amp; Development Review:</b>			
● Ability of Design & Development to Meet Requirements: <input type="checkbox"/> Yes <input type="checkbox"/> No _____			
_____			
● Identify Problems and Propose Necessary Actions: <input type="checkbox"/> Yes <input type="checkbox"/> No _____			
_____			
_____			
Authorized By: _____		Department Manager: _____	
Date	Date	Date	Date
Sales: _____		Sales: _____	
		Date	

**Design & Development Verification:**

●Review of Design Documents Prior to Release:  Yes  No \_\_\_\_\_

●Comparison of New Design with a Similar Proven Design:  Yes  No \_\_\_\_\_

●Alternative Calculations or Methods:  Yes  No \_\_\_\_\_

●Testing, Simulations or Trials to Check Compliance with Specific Input Requirements:  Yes  No \_\_\_\_\_

Authorized By: \_\_\_\_\_  
Date

Department Manager: \_\_\_\_\_  
Date  
Sales: \_\_\_\_\_  
Date

**Design & Development Validation:**

●Product Meets Requirements for Intended Application or Use:  Yes  No \_\_\_\_\_

Authorized By: \_\_\_\_\_  
Date

Customer Approval: \_\_\_\_\_  
If required Date

**Evaluation of the Effect of the Changes on Other Parts / or Final Product:**

Authorized By: \_\_\_\_\_  
Date

Department Manager: \_\_\_\_\_  
Date

**Evaluation of the Effect of the Changes on Product Already Delivered:**

Authorized By: \_\_\_\_\_  
Date

Department Manager: \_\_\_\_\_  
Date

**Final Approval:**

Authorized By: \_\_\_\_\_  
Date

Department Manager: \_\_\_\_\_  
Date

Customer Approval: \_\_\_\_\_  
If required Date

Effective Date: \_\_\_\_\_  
Date



<b>Chalmers &amp; Kubeck, Inc.</b> Department: _____	<b>Outsourced Design and Development Record</b>	<b>Job Number:</b> _____
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C&K Customer Name: \_\_\_\_\_ Customers Contact: \_\_\_\_\_  
 Job Description: \_\_\_\_\_ C&K Customer Required Date: \_\_\_\_\_  
 Drawing / Part #: \_\_\_\_\_ Rev: \_\_\_\_\_ Serial No.: \_\_\_\_\_

**Design Scope:** (attach customer requirement sheets) \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Design & Development Inputs:**

**Customer Supplied:** \_\_\_\_\_ **C&K Supplied:** \_\_\_\_\_ **Subcontractor Supplied:** \_\_\_\_\_  
                             By            Date                              By            Date                              By            Date

● Functional and Performance Requirements: \_\_\_\_\_  
 \_\_\_\_\_

● Applicable Statutory and Regulatory Requirements: \_\_\_\_\_  
 \_\_\_\_\_

● Other Information / Previous Designs: \_\_\_\_\_  
 \_\_\_\_\_

Authorized By: \_\_\_\_\_ Date \_\_\_\_\_ Dept. Manager: \_\_\_\_\_ Date \_\_\_\_\_  
 Subcontractor Authorized By: \_\_\_\_\_ Date \_\_\_\_\_ Sales: \_\_\_\_\_ Date \_\_\_\_\_

**Design & Development Outputs:**

● Drawings / Sketches:  Yes  No \_\_\_\_\_

● Specifications for Safe and Proper Use:  Yes  No \_\_\_\_\_

● Purchasing, Production & Servicing Information Provided:  Yes  No \_\_\_\_\_

● Product Acceptance Criteria Provided:  Yes  No \_\_\_\_\_

Authorized By: \_\_\_\_\_ Date \_\_\_\_\_ Dept. Manager: \_\_\_\_\_ Date \_\_\_\_\_  
 Subcontractor Authorized By: \_\_\_\_\_ Date \_\_\_\_\_ Sales: \_\_\_\_\_ Date \_\_\_\_\_

**Design & Development Review:**

● Ability of Design & Development to Meet Requirements:  Yes  No \_\_\_\_\_

● Identify Problems and Propose Necessary Actions:  Yes  No \_\_\_\_\_  
 \_\_\_\_\_

Authorized By: \_\_\_\_\_ Date \_\_\_\_\_ Dept. Manager: \_\_\_\_\_ Date \_\_\_\_\_  
 Subcontractor Authorized By: \_\_\_\_\_ Date \_\_\_\_\_ Sales: \_\_\_\_\_ Date \_\_\_\_\_

### Design & Development Verification:

• Review of Design Documents Prior to Release:  Yes  No \_\_\_\_\_

• Comparison of New Design with a Similar Proven Design:  Yes  No \_\_\_\_\_

• Alternative Calculations or Methods:  Yes  No \_\_\_\_\_

• Testing, Simulations or Trials to Check Compliance with Specific Input Requirements:  Yes  No \_\_\_\_\_

Authorized By: \_\_\_\_\_  
Date

Dept. Manager: \_\_\_\_\_  
Date

Subcontractor Authorized By: \_\_\_\_\_  
Date

Sales: \_\_\_\_\_  
Date

### Design & Development Validation:

• Product Meets Requirements for Intended Application or Use:  Yes  No \_\_\_\_\_

Authorized By: \_\_\_\_\_  
Date

Customer Approval: \_\_\_\_\_  
Date

Subcontractor Authorized By:: \_\_\_\_\_  
Date

### Action Items / Supporting Records (attach):

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<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.5</b>
SUBJECT: <b>DOCUMENT CONTROL</b>	Page 1 of 3
Reason for Revision: General review and update.	Rev. 3 02-07-14

## 1.0 Purpose

- 1.1** Chalmers & Kubeck has established and maintains documented procedures to control all documents and data that relate to this Quality Management System, including, to the extent applicable, documents of external origin such as standards and customer drawings. Documents and data can be in the form of any type of media, such as hard copy or electronic media.
- 1.2** Document Control shall ensure the following:
- a) documents and data are reviewed and approved for adequacy prior to issue;
  - b) documents are reviewed and updated as necessary, and re-approved;
  - c) changes and the current revision status of documents are identified;
  - d) pertinent issues of appropriate documents are available at all locations where operations essential to the effective functioning of the quality system are performed;
  - e) documents remain legible and readily identifiable;
  - f) documents of external origin determined to be necessary for the planning and operation of the quality management system are identified and their distribution controlled;
  - g) invalid and/or obsolete documents are promptly removed from all points of issue or use, or otherwise assured against unintended use;
  - h) any obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified with "For Information Only".

## 2.0 Scope

This procedure applies to Chalmers & Kubeck's defined essential documents such as drawings, sketches, customer drawings and standards, Quality System Manual and Approved Subcontractors List.

## 3.0 Responsibility

- 3.1** The President is responsible for reviewing and approving the Quality System Manual.



<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>		Process No. <b>CK-4.5</b>
SUBJECT: <b>DOCUMENT CONTROL</b>		Page 2 of 3
Reason for Revision: General review and update.		Rev. 3 02-07-14

- 3.2** Department Managers, Foremen and Estimators are responsible for contacting customers to obtain the correct document revision levels upon contract acceptance, issuing requirements for drawings to the Draftsman and for reviewing and approving (add job #, sign and date) the drawings per the Document Control Process Map (PM-4.5b). When a document is revised, it must be reviewed and approved by the originating function or appropriate information must be provided to assist them in their review and approval.
- 3.3** Department Managers, Foreman and Estimators are responsible for the review and approval (add job #, sign and date) of documents of external origin such as standards and drawings supplied by the customer.
- 3.4** The General Manager, Department Managers and Foremen are responsible for submitting suggested changes to the Quality System Manual to the Quality Manager per the Document Control Process Map (PM-4.5a).
- 3.5** The Department Managers, Foremen and Estimators are responsible for ensuring the latest revision of industry standards and specifications are being used. Current revision level shall be verified through the controlling agency and, the latest revision requested when necessary. These documents shall be maintained "For Information Only".
- 3.6** The Quality Manager is responsible for:
- 3.6.1 approving the Quality System Manual and revising the Table of Contents when changes are made;
  - 3.6.2 ensuring the latest revision of the Quality System Manual is on the C&K shared drive and accessible
  - 3.6.3 controlling the Approved Supplier List through electronic media.
- 3.7** Sales personnel are responsible for contacting customers to obtain the correct document revision levels upon contract acceptance.
- 3.8** Customer documents may be maintained in the completed job file after job completion as reference material or for information only.
- 3.9** The department Draftsman is responsible for producing Chalmers & Kubeck, Inc. drawings, for making the necessary revisions and for updating the department master document list per the Document Control Work Instruction (DCWI-4.5)

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No.  <b>CK-4.5</b>
SUBJECT:  <b>DOCUMENT CONTROL</b>	Page 3 of 3
Reason for Revision: General review and update.	Rev. 3 02-07-14

- 3.10** All employees are responsible for the review and approval (add job #, sign and date) of sketches they originate.
- 3.11** All employees are responsible to ensure drawings and sketches are approved prior to use, and obsolete documents are removed or identified as “For Information Only.”
- 3.12** All employees are responsible for notifying the General Manager, Department Managers or Foreman for changes required to the Quality System Manual per the Document Control Process Map (PM-4.5a).
- 3.13** All employees are responsible for obtaining any Chalmers & Kubeck drawings through Drafting per the Document Control Work Instructions (DCWI-4.5).

#### **4.0 References**

Clause 4.2.3 of ISO 9001:2008 Control of Documents  
 Document Control Process Map “Controlled Documents” (PM-4.5a)  
 Document Control Process Map “Controlled Drawings” (PM-4.5b)  
 Document Control Work Instruction (DCWI-4.5)

**Chalmers & Kubeck, Inc.**  
Quality System Manual

Procedure No.

**PM-4.5a**

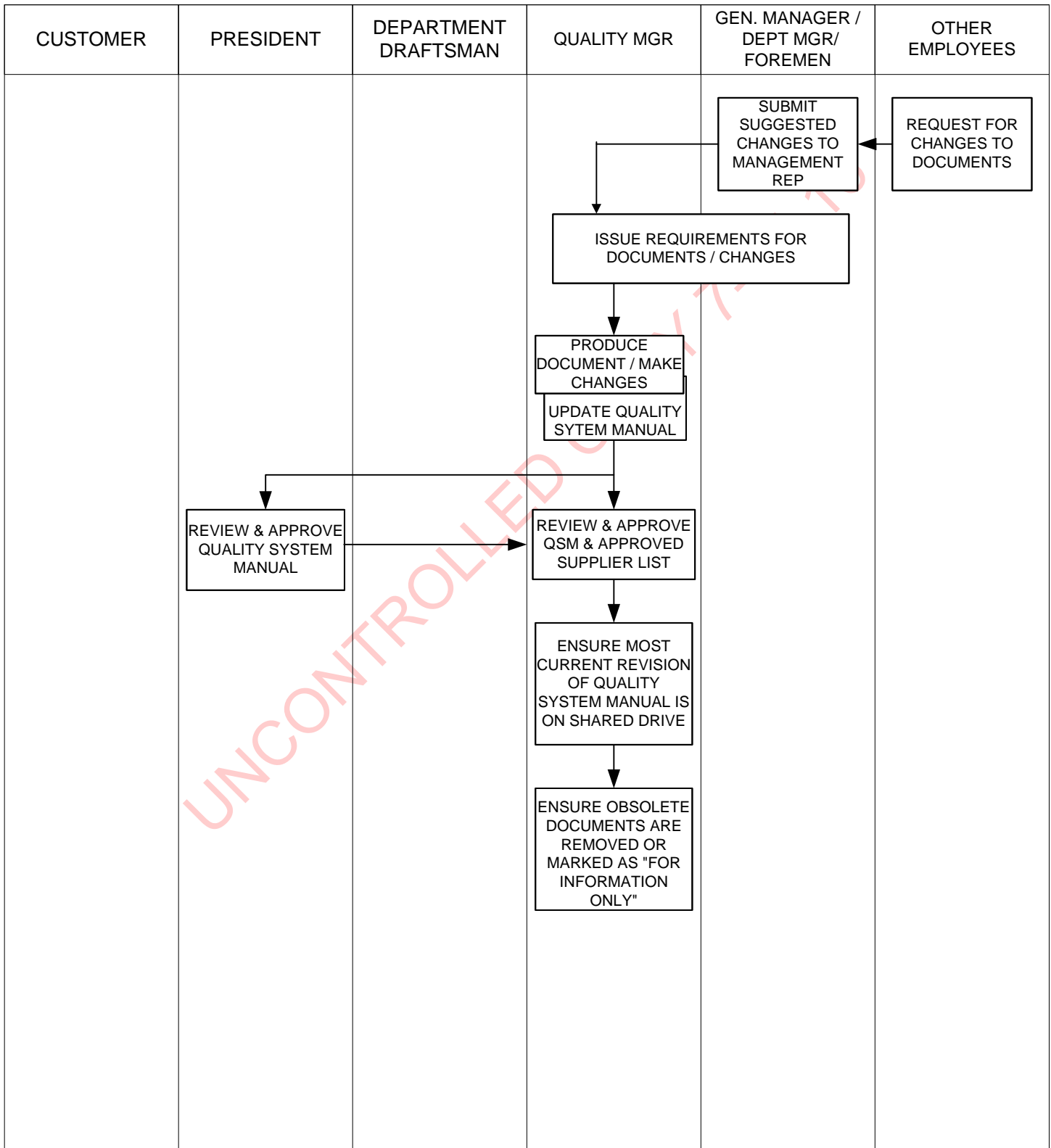
SUBJECT:

**DOCUMENT CONTROL - "CONTROLLED DOCUMENTS"**

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1 of 1

Reason for Revision: General review and update.

Rev.2  
02-07-14



**Chalmers & Kubeck, Inc.**  
Quality System Manual

Procedure No.

**PM-4.5b**

SUBJECT:

**DOCUMENT CONTROL - "CONTROLLED DRAWINGS"**

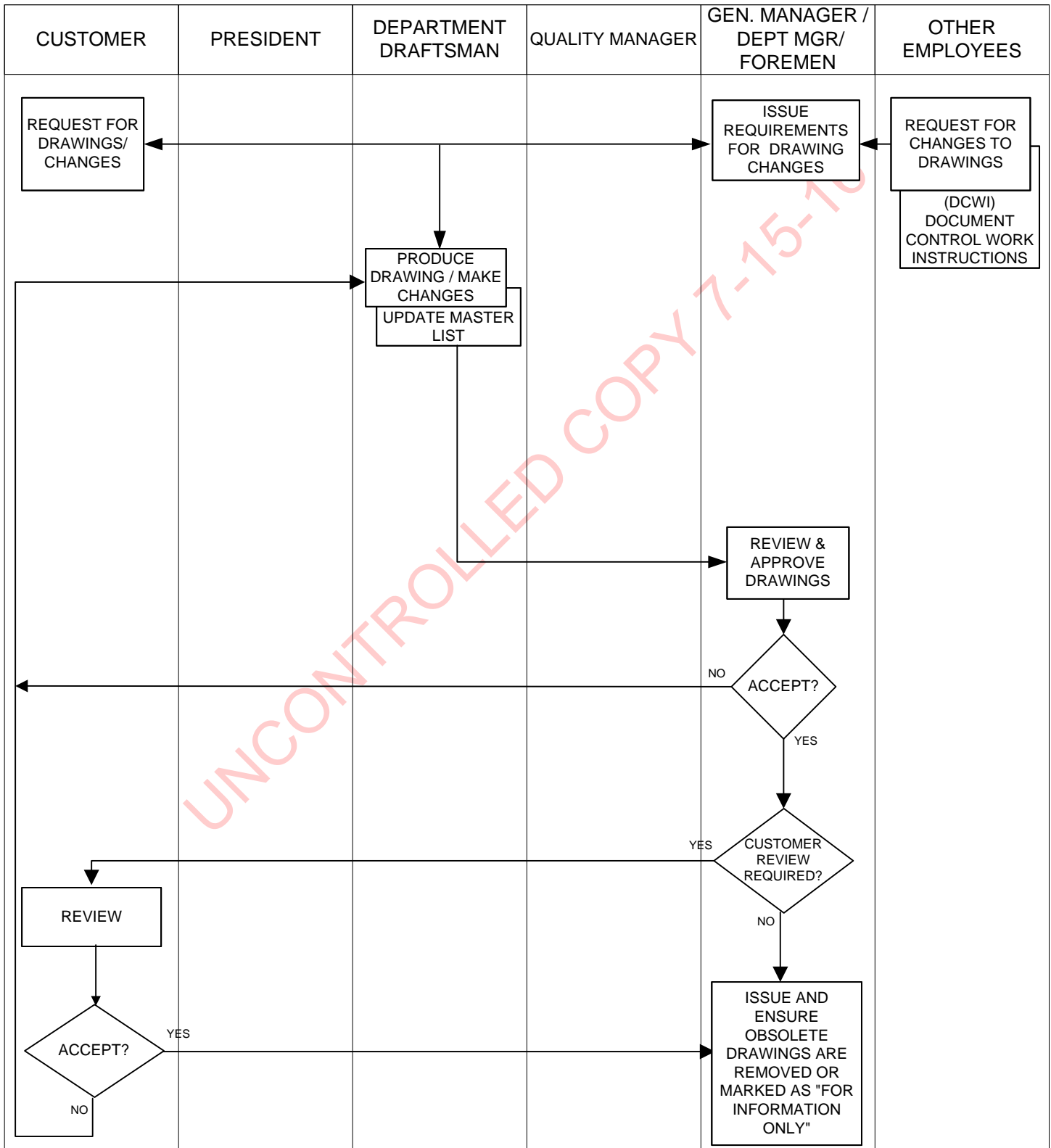
Page:

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Reason for Revision: General review and update.

Rev.2

02-07-14



<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>DCWI-4.5</b>
SUBJECT: <b>DOCUMENT CONTROL WORK INSTRUCTION</b>	Page: 1 of 1
Reason for Revision: General review and update.	Rev.1 02-07-14

### **Work Instructions for obtaining drawings through Drafting**

1. Submit a request for drafting services including all necessary information to complete the first draft, this information should include a sketch with a job number or department overhead number, signature and date.
2. A copy is kept on file in the department office and a copy is issued to the department for manufacturing. The issued copy shall be reviewed and approved (add job # or department overhead number, signed and dated).
3. All corrections and / or changes should be marked on the drawing. Each correction or change will be initialed and dated.
4. The drawing will be filed in the job file upon completion of the job.

UNCONTROLLED COPY 7-10-16

<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.6</b>
SUBJECT: <b>PURCHASING</b>	Page 1 of 2
Reason for Revision: General review and update	Rev. 3 02-07-14

## 1.0 Purpose

- 1.1** Purchasing is to ensure that products and services purchased from suppliers conform to specified requirements. This is accomplished by issuing clear and precise requirements in purchasing documents to only approved suppliers.
- 1.1.1** Purchasing information shall describe the product to be purchased, and shall ensure the adequacy of the specified purchase requirements including where appropriate:
- a) requirements for approval of product, procedures, processes and equipment;
  - b) requirements for qualification of personnel;
  - c) quality management system requirements;
  - d) customer, statutory and regulatory requirements.
- 1.2** Chalmers & Kubeck shall evaluate and select suppliers on the basis of their ability to meet purchase order requirements including quality management system and any specific quality requirements.
- 1.3** Suppliers shall be selected and/or evaluated by any of the following acceptable criteria:
- a) Suppliers registered to the current ISO quality standard;
  - b) Results of the Supplier Evaluation Report (SupEval);
  - c) Examination of supplier's verification data (laboratory or test reports, certificate of analysis, inspection and test data);
  - d) Historical performance with ongoing monitoring;
  - e) Sole source supplier;
  - f) Customer Approved Suppliers;
  - g) Placement on the Approved Suppliers List.
- 1.4** Suppliers of "Off the Shelf" items are not listed on the Approved Suppliers List.

## 2.0 Scope

This procedure applies to purchased products and services that directly affect the quality of the final product.

<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.6</b>
SUBJECT: <b>PURCHASING</b>	Page 2 of 2
Reason for Revision: General review and update	Rev. 3 02-07-14

### **3.0 Responsibility**

- 3.1** The originator of a purchase order is responsible for processing the purchase order per the Purchasing Process Map (PM-4.6)
- 3.2** The Quality Manager is responsible for ensuring that all suppliers are annually evaluated using the Supplier Evaluation Report (SupEval) and for maintaining the Approved Suppliers List (ASL) per CK-4.16, Control of Quality Records.
- 3.3** Department Managers, Foremen, Estimators or Purchasing are responsible for the review and approval of purchasing documents to ensure the requirements are clear and precise (i.e., quantity, description, part numbers and revision levels), verifying the material ordered against the Purchase Order and packing list and for annually evaluating the suppliers' performance using the Supplier Evaluation Report (SupEval).
- 3.4** Shipping and Receiving is responsible for receiving material, checking count and condition, comparing the Purchase Order and packing list information for agreement and delivering the material to the appropriate department.
- 3.5** Where Chalmers & Kubeck, Inc or its customer intends to perform verification at the suppliers premises, Chalmers & Kubeck, Inc shall state the intended verification arrangements and method of product release in the purchasing information.
- 3.6** The Quality Manager is responsible for the logging and trending of Supplier Nonconformances and to provide this information to assist Department Managers, Foreman, Estimators and Purchasing in the annual Supplier Evaluation.

### **4.0 References**

Clause 7.4 of ISO 9001:2008  
 Purchasing Process Map (PM-4.6).  
 Purchase Order  
 Purchase Order (CompGen PO)  
 Approved Supplier List (ASL)  
 Supplier Evaluation Report (SupEval)

Chalmers & Kubeck, Inc.  
Quality System Manual

Procedure No.

**PM-4.6**

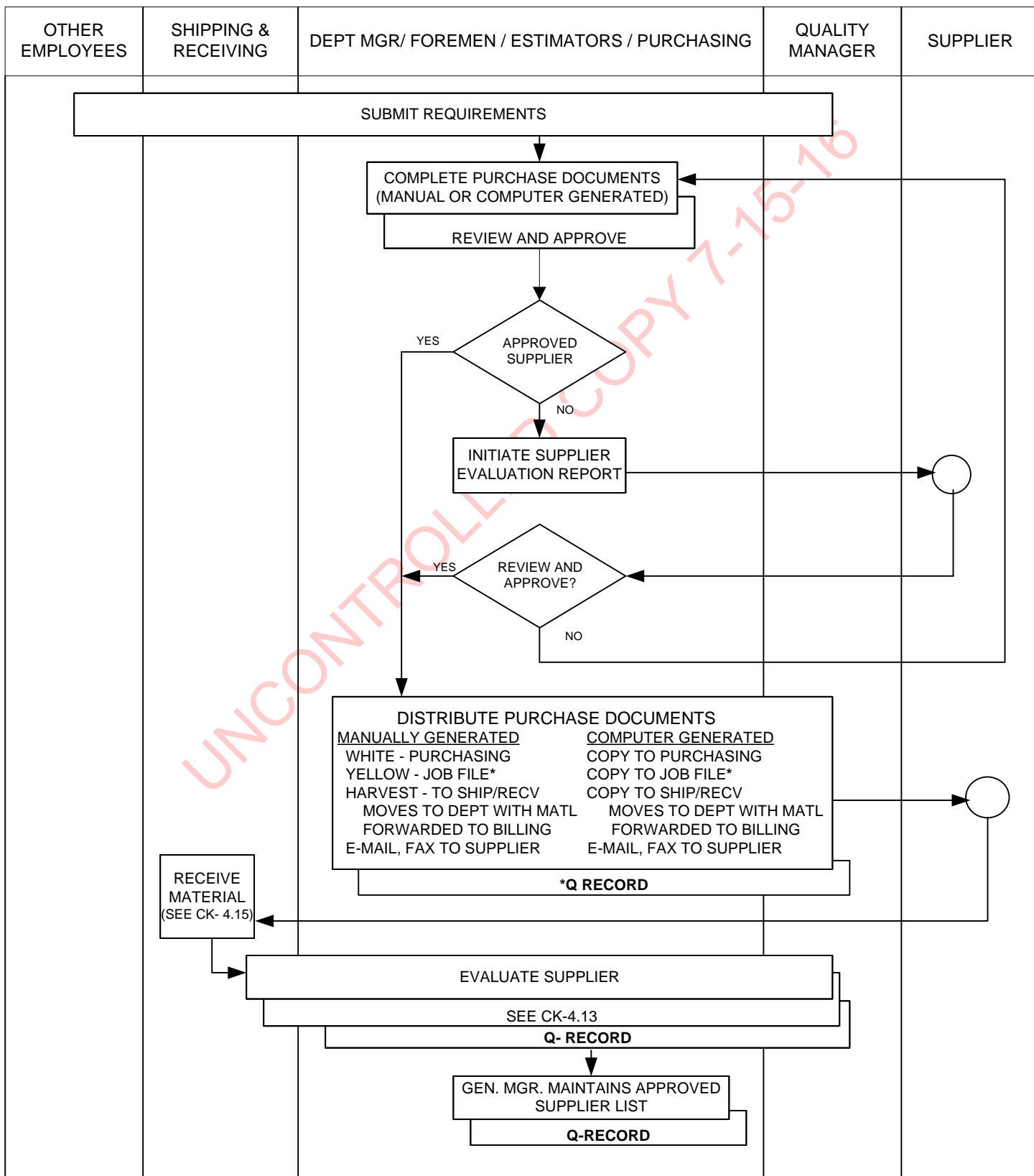
SUBJECT:

**PURCHASING**

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1 of 1

Reason for Revision:

Rev.1  
02-07-14







# Chalmers & Kubeck, Inc.

150 Commerce Drive  
 PO Box 2447  
 Aston, PA 19014-0447  
 Phone: (610) 494-4300 Fax: (610) 485-1484

Purchase Order			
Order Date	P.O. Number	Dept. Charge #	Stock

**TO:**

**SHIP TO:**

**Chalmers & Kubeck, Inc.**  
**150 Commerce Drive**  
**Aston, PA 19014**  
**ATTN:**

**ATTN:**

DELIVER BY:		SHIP VIA:		F.O.B.	FRT. ALLOW	PAYMENT TERMS	
Item	Quantity	U of M	Description			Unit Price	Amount
<u>Notes:</u>						Total	
						\$0.00	
<b>Requisitioner:</b>						<b>Date:</b>	
<b>Purchasing Authority:</b>						<b>Date:</b>	

MSDS required with shipment

*John Moore Sr* 1/29/16

**Approved Supplier List**

Approved Product or Service	Vend ID	Supplier Name	Dept	Phone
EDM	46	Accurate Mold	Machn	856-784-8484
Dry Ice Blasting	109	Act Dry Ice Services, LLC	Machn	215-234-4371
Plate 4130	150	AGI, Inc	CNC	803-802-8811
Plating and Painting	338	AMZ	CNC	717-848-2565
Plate & Bar	307	American Alloy Steel	Weld	315-336-9022
Heat Treating	323	American Metal Treating Co.	Gear	216-431-4492
Pipe & Fittings	518	Apex Remington Pipe & Supply Co	Machn	484-483-4137
Casting, Bronze & Brass, Cast Iron	430	Atlas Bronze Company	Pump	215-427-0444
Phenolic, Melamine & Glass Epoxy	424	Atlas Fibre Company	CNC	800-323-1408
Wire EDM	458	B&B Precision Wire EDM	CNC	410-638-8287
Grinding	461	B W Grinding Service, Inc.	Eng Pumps	713-641-0888
Water Jet Cutting / Machining	Credit Card	Bassett Industries	Weld	610-327-1200
Water Jet Cutting	Credit Card	Boninfante Enterprises	Machn	610-626-8743
Bearing Mat'l & Bearings Vert. Pumps	660	Boulder Co.	Eng Pumps	610-825-1515
Inspection Services & Equipment	662	Bradford Instrument & Gage (Brad-Cal)	QC	302-999-1690
NDT Test / Inspection	719	Branch Labs	Weld	908-272-5743
Tank Heads	732	Brighton Tru-Edge	Weld	800-543-1644
Sand Blasting & Painting	887	Carney's Point Metal Processing	Pump	856-351-9570
Steel Plate & Structural Shapes	947	Central Steel Service	Weld	205-664-2950
Steel Shapes	946	Certified Steel Company	Weld	609-393-7600
Valve Springs	1097	Coiling Technologies	Valve	713-849-4000
Gaskets & Seals	954	Consolidated Engine Stop Co. LLC	CNC	610-419-4701
Copper, Brass, Stainless Steel	1153	Copper & Brass Sales	Machn	610-586-1800
Nickel Alloys	1162	Corrosion Material	Machn	800-535-8032
Calibration & Certification of Electronics	6087	Davis Inotek	Valve	215-673-5600
Forgings	1314	Dayton Forgings	Gear	800-723-0648
Plate Burn to Sketch	1367	Delaware Valley Steel Co., Inc.	CNC	610-499-6100
Heat Treating	1369	Delphi Eng. & Contracting, Inc.	Valve	609-468-4839
Heat Treating	1450	Donovan Heat Treating Co., Inc.	CNC	215-335-2200



## Approved Supplier List

Approved Product or Service	Vend ID	Supplier Name	Dept	Phone
Gaskets & Seals	1455	Dooley Gasket & Seal	Pump	610-328-2720
Plate & Structural Shapes	1487	D.S. Steel	Weld	410-837-1717
Alloy Steels	1490	Duennar Supply	Weld	917-446-4456
Bearings	1503	Duramax Marine LLC	Eng Pumps	440-834-5400
Steel & Plate	1512	Durrett Sheppard Steel	Weld	800-888-8567
Repair of Mechanical Seals	1592	Eagle Burgmann	Eng Pumps	713-939-9515
Steel & Aluminum Plate, Bar & Shapes	1594	East Coast Steel Inc	CNC	856-582-6776
Polymers for resurfacing, rebuilding	1766	Enecon	Eng Pumps	516-349-0022
Metal Pre-Fabrication	4584	Ernest D. Menhold	Weld	610-521-4700
Water Jet Cutting	1839	Extreme Machining LLC	Weld	302-368-7595
Sand Blasting & Painting	1853	F.A.D.	CNC	610-872-4254
Water Jet Services	1854	Fabspeed Precision	CNC	610-417-2599
Hardware / Special Fasteners	1900	Fastening Products	CNC	610-623-5100
Bronze Castings	1908	Federal Bronze Casting Industries	CNC	973-589-7575
Fabrication / Rolling	2000	Florig	Weld	610-825-6655
Repair of Mechanical Seals	1511	Flowserve	Eng Pumps	856-467-4401
Gaskets & Repair of Mechanical Seals	2126	Gaddis	Eng Pumps	516-759-3100
Thread Gages	2125	Gage Assembly Company	QC	847-679-5180
Bearing Mat'l & Bearings Vert. Pumps	2255	Graphalloy	Eng Pumps	914-968-8400
Bearing Mat'l & Bearings Vert. Pumps	2270	Green Tweed & Co	Eng Pumps	281-821-2094
Plate Cut & Formed	2254	Greiner Industries	Weld	717-653-8111
Deep Hole Drilling	2327	Hanner Industries, Inc.	Pump	215-785-4461
Shafts, Sleeves & Balance Pieces	3047	HHH Machine Inc.	Eng Pumps	908-276-1220
Balancing, Overspeed Testing	3054	Hickham - Sulzer Turbomachinery	QC	713-567-2717
Plates Cutting and Forming	Credit Card	Hodgson Custom Rolling Inc	Weld	905-356-8132
Shafting & Sleeves	Credit Card	Irrigation Machine & Supply	Eng Pumps	806-747-3443
Pump Parts - Aftermarket	3166	ISC-Easton PA	Eng Pumps	484-373-0410
Metal Forming	1590	James Eagen & Sons	Weld	570-693-2100
Stainless Steel Plate & Cutting	382	Jaquet Mid-Atlantic	Weld	800-925-6985
Drive Couplings for Pumps	730	John Bridge & Sons	Eng Pumps	610-874-6204

## Approved Supplier List

Approved Product or Service	Vend ID	Supplier Name	Dept	Phone
Mechanical Seals for Pumps	1180	John Crane	Eng Pumps	610-356-6800
Welding Equipment, Maintenance & Cal.	1240	J.A. Cunningham Equipment Co	Weld	215-426-6650
Plates / Shapes	5700	J.T. Ryerson	Weld	215-736-8970
Bearing Manufacturer	4030	Kingsbury, Inc	Gear	215-824-4813
Galvanizing	4049	Korns Galvanizing	CNC	814-535-7639
Water Jet Cutting	4048	Krando Metals	Machn	610-543-3799
EDM / Screw Machine	4059	KV Inc	CNC	215-322-4044
Tank Heads	4206	L.A. Boiler Works	Weld	405-363-1317
Valve - Spring Testing, Material Test	4160	Lehigh Testing Lab	Weld	302-328-0500
Industrial Fasteners	4168	Lilly Fasteners	Weld	302-368-1223
Calibration Testing	4063	LTI - Metrology	Valve	800-219-9095
Steel Plate HY80	4468	Manzi Metal Inc	CNC	800-799-8211
Burning & Forming	4483	Martelli's Metal Fabrication	Weld	215-957-9700
Repair of Hi Torques	4502	Maxpro	Eng Pumps	215-706-0175
Forgings, Sheaves	4339	McKees Rock	Gear	800-223-2818
Perforated Sheet & Mesh (Metal)	4344	McNichols Co	Weld	800-237-3820
Metal Spray	4621	Metal Improvement Co	CNC	864-486-9311
Round Bar, ASTM A576 Gr.1018	Credit Card	Metal Suppliers Online	CNC	603-329-0101
NDT Test / Inspection	4706	Mistras Group	CNC	610-497-0400
Stainless Steel Bar	4362	M-N Metals	Eng Pumps	800-351-1592
Shaft Material & Bar Stock	4874	National Specialty Alloys	Eng Pumps	800-847-5653
Liquid Salt Bath Nitriding	4946	Northeast Coating Technologies	Machn	207-985-3232
Gear Cutting, Worm Gear	4968	Nuttall Gear(Delroyd)	Gear	800-432-0121
Forgings	5070	Patriot Forge, Inc.	CNC	519-621-2070
Ferrous Raw Materials	5127	Penn Iron	Eng Pumps	610-777-7656
Stainless Steel	5144	Penn Stainless	Machn	800-222-6144
Cold Rolled Steels	5149	Pennsylvania Steel	Machn	800-999-2997
Pipe Formed	5241	Philadelphia Pipe Bending	Weld	215-223-9420
Aluminum Stock	5245	Pierce Aluminum	Weld	508-541-7007
Manufacturer & Calibration of PI Tapes	5264	PI Tape	QC	760-746-9830



## Approved Supplier List

Approved Product or Service	Vend ID	Supplier Name	Dept	Phone
Pipe and Pipe Supplies	5249	Piping Supplies	Weld	609-561-9323
Repair of Chesterton mechanical seals	5365	Process Technologies	Eng Pumps	610-603-7525
Fabrication of Discharge Heads	5372	Pro Fab Corp	Eng Pumps	806-747-7272
NDE Testing Lab	5429	Q.S.L. Inspection, Inc.	Weld	610-497-0400
Babbling	5437	Quality Babbling	Machn	603-642-7147
Calibration & Inspection Equip Repair	5432	Qual-Tech Labs	QC	610-524-7870
Testing	5474	Ramball Testlab, Inc.	CNC	609-786-8880
Heat Treating	6775	Robert Wooler	CNC	215-542-7600
Packaging Services	5645	Roddy Products Packaging Inc.	CNC	610-623-7040
Stainless Steel and Nickel Alloy Formed	5650	Rolled Alloys	Weld	800-521-0332
Engineered Bowl Assemblies	5685	Ruhrumpfen	Eng Pumps	918-627-8400
Water Jet Cutting	5707	S & W Race Cars	Gear	610-948-7303
Piston Rings	5740	Safety Seal Piston Ring Company	CNC	903-938-9241
Metal Cutting & Forming	6627	Samuel Sons & Company	Weld	800-822-3773
Forgings - Steel	5878	Schultz Steel Company	CNC	323-564-3281
Forgings	5804	Scot Forge	Gear	800-435-6621
Special Hardware / Fasteners	5880	Shur-Kut Supply Corp	CNC	484-840-0980
Non-Destructive Testing	6067	Stork Material Tech - MMA Testing Labs	Weld	215-579-7500
Steel & Plate	6041	Steel Plate Products	Weld	610-935-9550
Heat Treating	6076	Superheat	Eng Pumps	708-478-0205
Custom Boxes / Crates	6082	Sustek	CNC	610-485-9600
Heat Treating & NDT	1147	Team Industrial Services	Eng Pumps	610-859-7800
Liquid Salt Bath Nitriding	4946	Techniques Services	Machn	614-218-5875
Castings	6165	Texas Stainless	Machn	800-874-8538
Industrial Titanium Products	Credit Card	Tico Titanium Inc	Weld	866-949-1699
Pipe	6190	Tioga Pipe	Machn	215-831-0700
Metal Forming & Spinning	6210	Toledo Metal Spinning Company	CNC	419-535-5931
Tank Heads	6317	Trinity Industries	Weld	409-825-6581
Steel Tubes	6332	Tubular Steel	Weld	314-851-9200
Vertical Pump Parts	6336	Turbine Supply	Eng Pumps	806-763-5901

## Approved Supplier List

Approved Product or Service	Vend ID	Supplier Name	Dept	Phone
Chrome Plating	6406	US Chrome Corp. of PA	Pump	610-272-1945
Balancing	6509	Vibration Specialty Corporation	Eng Pumps	877-698-0800
Grinding	6517	Vitols Tool & Machine Corp.	CNC	215-464-8240
Machine Shop	6612	Wagner Machine Company	Weld	610-485-3831
Impellers & Castings	Credit Card	Weir-Deer Park TX	Eng Pumps	832-200-6220
Welding & Fabrication	5780	William Schmidt & Sons	Weld	215-874-8436
Metal & Metal Plate	Credit Card	Wingate Alloys	CNC	216-381-0040

**Chalmers & Kubeck, Inc.**

**Supplier Evaluation Report**

Supplier Name: \_\_\_\_\_ ISO 9001 Registered:  Yes Date: \_\_\_\_\_

Evaluation Period: Jan 1 \_\_\_\_\_ to Dec 31 \_\_\_\_\_.

Initial Setup for Evaluation: \_\_\_\_\_

Initial Setup Requested By: \_\_\_\_\_ Department: \_\_\_\_\_

Product / Service Provided: \_\_\_\_\_

Vendor ID: \_\_\_\_\_ Phone Number: \_\_\_\_\_

Please score the Supplier in the following areas:

1. Overall, how would you score the *quality* of the products or services provided? Score: \_\_\_\_\_

- [3] Satisfied?
- [2] Neither satisfied nor dissatisfied?
- [1] Dissatisfied?

2. Overall, how would you score the *delivery* of the products or services provided? Score: \_\_\_\_\_

- [3] Satisfied?
- [2] Neither satisfied nor dissatisfied?
- [1] Dissatisfied?

3. Overall, how would you score the *pricing* of the products or services provided? Score: \_\_\_\_\_

- [3] Satisfied?
- [2] Neither satisfied nor dissatisfied?
- [1] Dissatisfied?

4. How satisfied are you with the *service* of the supplier? Score: \_\_\_\_\_

- [3] Satisfied?
- [2] Neither satisfied nor dissatisfied?
- [1] Dissatisfied?

Total Score: \_\_\_\_\_

Number of Supplier Nonconformances: \_\_\_\_\_.

Recommendation:  Approved  Disapproved

Comments: \_\_\_\_\_

If a Supplier is NOT Approved, a Rejection Reason must be given on the line below.

\_\_\_\_\_

The Evaluator must have personal knowledge of the Suppliers' performance during the rating period.

\_\_\_\_\_  
Evaluated by Date



<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No. <b>CK-4.7</b>
SUBJECT: <b>CUSTOMER PROPERTY</b>	Page: 1 of 1
Reason for Revision: General update and revision.	Rev. 2 02-07-14

## **1.0 Purpose**

To ensure products supplied by the customer are identified, verified, stored and maintained properly. Any product that is lost, damaged or is otherwise unsuitable for use shall be reported to the customer.

## **2.0 Scope**

This procedure applies to products / items supplied by the customer under terms of the contract. Customer property can include intellectual property and personal data.

## **3.0 Responsibility**

**3.1** Department Managers, Foremen and Estimators are responsible for verifying and identifying Customer Property per CK-4.8 (Product Identification and Traceability) and completing a Work Order and/or an Inspection Sheet.

**3.2** Department Managers, Foremen and Estimators are responsible for notifying the customer if the product is lost, damaged or unsuitable for use per CK-4.13 (Control of Nonconforming Product) and maintaining the notification per CK-4.16 (Control of Quality Records).

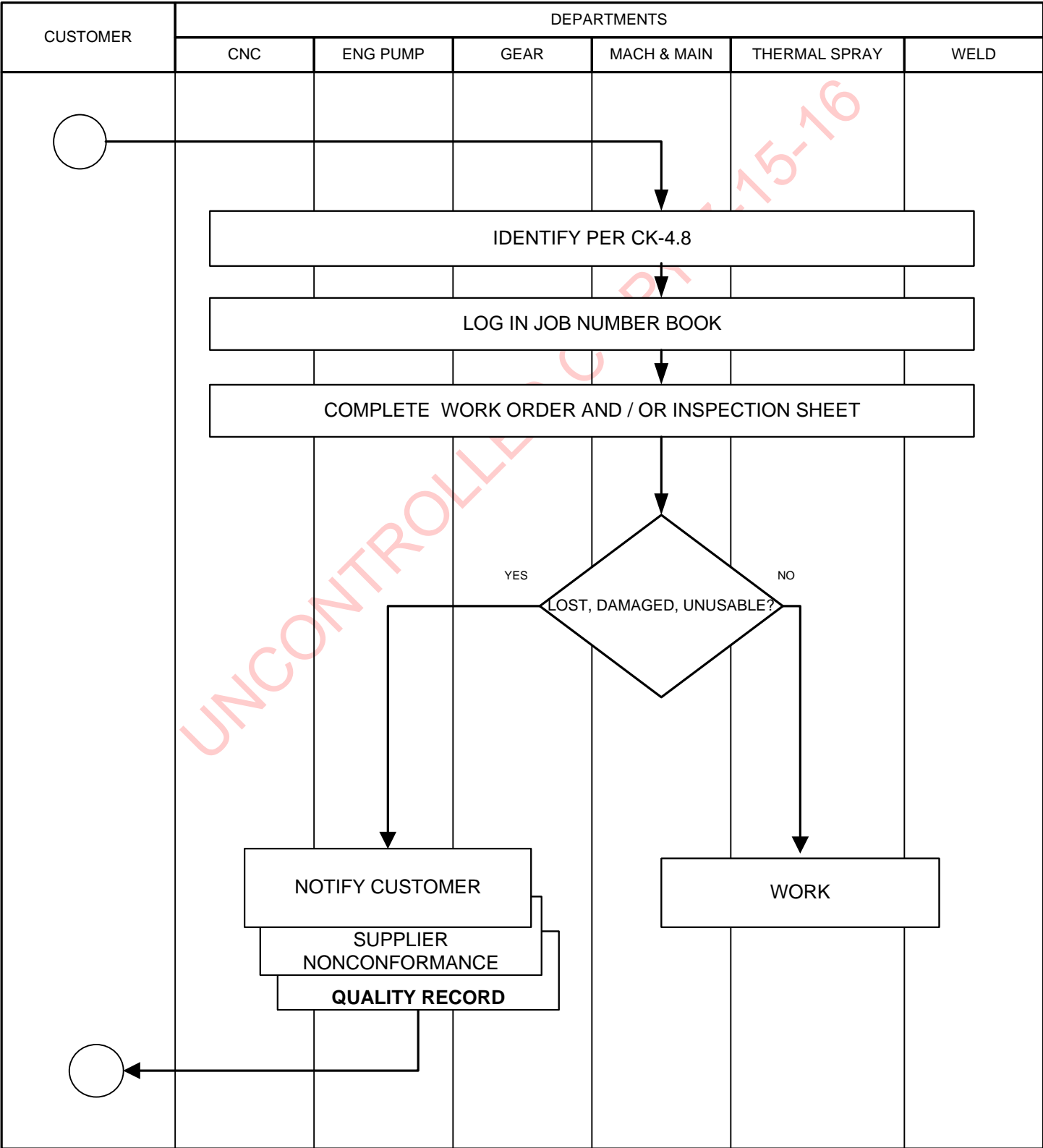
**3.2.1** Customers supplying damaged or unsuitable for use material are not required to complete the Cause of Nonconformance or the Initial Corrective Actions Taken sections of the Supplier Nonconformance Report.

**3.3** Department Managers, Foreman and Estimators are responsible for the protection, maintenance, safeguarding and storage of Customer Supplied Product per CK-4.15 (Preservation of Product).

## **4.0 References**

Clause 7.5.4 of ISO 9001:2008 Customer Property  
Customer Property Process Map (PM-4.7)

<b>Chalmers &amp; Kubeck, Inc.</b> Quality System Manual	Procedure No. <b>PM-4.7</b>
SUBJECT: <b>CUSTOMER PROPERTY</b>	Page: 1 of 1
Reason for Revision: General review and update.	Rev.1 02-07-14



<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No.  <b>CK-4.8</b>
SUBJECT:  <b>IDENTIFICATION AND TRACEABILITY</b>	Page: 1 of 1
Reason for Revision: Delete paragraph 3.3.1	Rev. 3 05-01-14

## **1.0 Purpose**

To ensure materials, parts and components are properly identified, as per applicable drawings, specifications or contract, and are readily traceable when required. To ensure by means of suitable identification markings that the progress of materials can be traced to its origin.

## **2.0 Scope**

This procedure applies to raw materials, products and assemblies during procurement, storage, repair, manufacturing and shipping, including customer supplied products.

## **3.0 Responsibility**

- 3.1** Shipping and Receiving is responsible for identifying material with job numbers, customer name or overhead number, and/or color codes. Shipping and Receiving is responsible for delivering the material to the appropriate department per the Product Identification and Traceability Process Map (PM-4.8).
- 3.2** Department Managers, Foremen and Estimators are responsible for ensuring parts and material are identified with job numbers, customer name or overhead number and the identification is maintained throughout production.
- 3.3** Department Managers, Foreman and Estimators are responsible for purchasing raw material when traceability is a contract requirement and maintaining the Material Certificate in the job file as a quality record per CK-4.16 (Control of Quality Records).
- 3.4** Product Status shall be identified with respect to monitoring and measurement requirements per CK-4.12 (Inspection and Test Status).
- 3.5** All employees are responsible for maintaining identification markings throughout production, this shall include raw bar stock.

## **4.0 References**

Clause 7.5.3 of ISO 9001:2008 Identification and Traceability  
Product Identification and Traceability Process Map (PM-4.8)  
Material Certificates

Chalmers & Kubeck, Inc.  
Quality System Manual

Procedure No.

**PM-4.8**

SUBJECT:

**IDENTIFICATION AND TRACEABILITY**

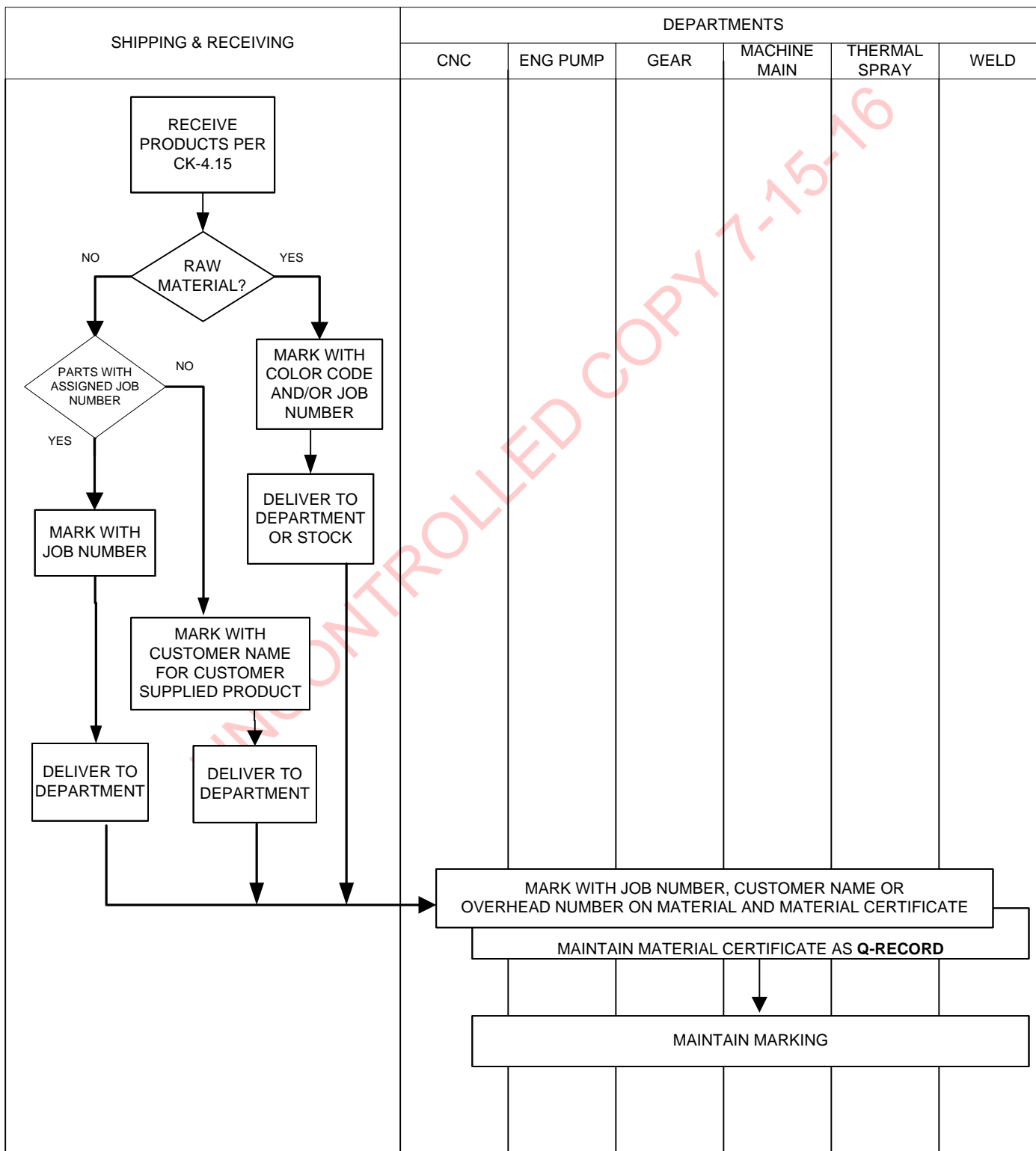
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Reason for Revision:

Rev.2

05-01-14



<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.9</b>
SUBJECT: <b>Control and Validation – Production and Service Provision</b>	Page 1 of 2
Reason for Revision: General review and update.	Rev.2 02-07-14

## 1.0 Purpose

- To ensure production and service provisions are planned and carried out under controlled conditions;
- To ensure the validation of any process used in production or service provision where the resulting output cannot be verified by subsequent monitoring and measurement.

## 2.0 Scope

This procedure applies to processes performed for a customer.

## 3.0 Responsibility

- 3.1** Department Managers, Foreman and Estimators are responsible for planning and carrying out production and servicing provision under controlled conditions. Controlled conditions shall include, 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 equipment;
  - e) the implementation of monitoring and measurement;
  - f) the implementation of product release, delivery and post-delivery activities.
- 3.2** Department Managers and Foreman are responsible for ensuring that the criteria for workmanship is stipulated in the clearest practical manner through the use of Work Orders, Work Instructions, drawings, sketches or other documented procedures and information.
- 3.3** Department Managers are responsible for approving equipment and processes prior to their initial use, when appropriate.
- 3.4** Department Managers are responsible for maintaining Process Qualification Record - Coatings using PQ-4.9, for personnel who apply Coatings per CK-4.16, Control of Quality Records.
- 3.5** The Weld Department Manager is responsible for validation of the welding process. Welding shall be in accordance with Chalmers & Kubeck, Inc. Quality Control Manual for the Shop Fabrication and Field Assembly of Pressure Vessels to ASME Code Section VIII Div. 1 and Shop and Field Repairs and Alterations to Pressure Retaining Items in accordance with the National Board Inspection Code and Jurisdictional Requirements.

<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.9</b>
SUBJECT: <b>Control and Validation – Production and Service Provision</b>	Page 2 of 2
Reason for Revision: General review and update.	Rev.2 02-07-14

- 3.6** The Weld Inspector is responsible for maintaining the qualification records for procedures and personnel who perform welding and NDT per CK-4.16, Control of Quality Records.
- 3.7** Machinists, Mechanics and Welders are responsible for performing suitable maintenance on the equipment they use.
- 3.8** Machinists, Mechanics and Welders are responsible for monitoring and controlling process parameters and product characteristics through inspection and testing.
- 3.9** All employees are responsible for complying with reference codes, standards, Work Orders and documented procedures.

#### **4.0 References**

Clause 7.5.1 & 7.5.2 of ISO 9001:2008  
 Process Qualification Record - Coatings (PQ-4.9)  
 Quality Control Manual – Welding per ASME VIII Div. 1

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*Chalmers & Kubeck, Inc.*

**Process Qualification Record - Coatings**

**Employee Name:** \_\_\_\_\_

**Department:** \_\_\_\_\_

**Coatings that may be applied:**

- Epoxy Products
- Painting
- Preservatives

**Qualification Statements for the Application of Coatings**

●Prior to the application of any coating, I have been instructed to read the coating manufacturers preparation and application directions and to follow those directions exactly.

●Prior to the application of any coating, I have been instructed to check the expiration date on coatings with a shelf life. Coatings exceeding the expiration date shall not be used. The material shall be red tagged with the Shop Nonconformance Tag and my Foreman or Department Manager notified of expired material requiring disposal.

●In the event that I do not understand the preparation and/or application directions, I will get clarification from my Foreman or Manager, or in their absence another knowledgeable employee prior to proceeding with the coating preparation and application.

I have read and understand the above requirements.

**Employee Signature:** \_\_\_\_\_

Date

**Department Manager:** \_\_\_\_\_

Date

<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>		Process No. <b>CK-4.10</b>
SUBJECT: <b>MONITORING AND MEASUREMENT</b>		Page: 1 of 3
Reason for Revision: General review and update.		Rev.4 05-01-14

## 1.0 Purpose

To ensure monitoring and measuring activities are carried out to verify the specified requirements for the products are met.

## 2.0 Scope

This procedure applies to materials purchased for use on the final product, customer supplied products, items in the process of being manufactured, assembled, and/or repaired and final inspection and testing of products.

## 3.0 Responsibility

**3.1** Shipping and Receiving is responsible for receiving material, checking count and condition, and verifying agreement of Purchase Order and Packing List, identifying material and delivering material to the appropriate area per CK-4.15 (Preservation of Product).

**3.2** Department Managers, Foremen and Estimators are responsible for:

- ensuring parts and components are inspected upon receipt; in determining the amount and nature of incoming inspection, consideration will be given to the amount of control exercised at the subcontractor's premises and the recorded evidence of conformance provided;
- determining critical dimensions;
- performing second checks for critical criteria when requested by machinists/mechanics;
- ensuring final inspection and testing is complete;
- ensuring final Dimensional Record is complete;
- preventing the release of final product until all the activities specified in the quality plan and/or documented procedures have been completed and the data and documentation are available and authorized;
- authorizing the release of final product by completing the Shipping Release Tag;
- maintaining the final Dimensional Record as a quality record per CK-4.16;
- maintaining the Shipping Release Tag as a quality record per CK-4.16.
- maintaining the Material Certificate as a quality record per CK-4.16.



<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>		Process No. <b>CK-4.10</b>
SUBJECT: <b>MONITORING AND MEASUREMENT</b>		Page: 2 of 3
Reason for Revision: General review and update.		Rev.4 05-01-14

**3.3** The QC Inspector is responsible for:

- performing receiving inspections as required for parts and components;
- performing second checks for critical criteria as requested by machinists/mechanics and completing the Dimensional Record;
- performing final inspection and testing as required;
- ensuring final Dimensional Record is complete;
- preventing the release of final product until all the activities specified in the quality plan and/or documented procedures have been completed and the data and documentation are available and authorized;
- completing the final Dimensional Record as required and forwarding the Dimensional Record to the appropriate department manager.
- authorizing the release of final product by completing the Shipping Release Tag and forwarding the Shipping Release Tag to the appropriate department manager.

**3.4** Machinists, Mechanics and Welders are responsible for:

- verifying raw material sizes and component dimensions;
- performing in-process inspection and testing;
- holding product until the required inspection and tests have been completed or necessary reports have been received and verified;
- completing in-process Dimensional Records;
- performing second checks as requested by other machinists/mechanics;
- performing final inspection and testing as required;
- completing final Dimensional Records as required and forwarding the Dimensional Record to the Department Manager or Foreman for release.

**3.4.1** In the absence of the Department Manager, Foreman or Estimator, the Machinist, Mechanic or Welder shall have the authority to release product (by completing the Shipping Release Tag) after ensuring all final inspection and testing has been completed, the final Dimensional Record is complete and verifying that all activities specified in the Quality Plan and/or documented procedures have been accomplished. The completed Shipping Release Tag shall be forwarded to the appropriate department manager.

<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>		Process No. <b>CK-4.10</b>
SUBJECT: <b>MONITORING AND MEASUREMENT</b>		Page: 3 of 3
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#### 4.0 References

Clause 7.5.1 of ISO 9001:2008 Control of Production and Service Provision

Inspection and Testing Process Map (PM-4.10)

Dimensional Record - CNC (QC\_Dim\_C)

Dimensional Record – Gear (QC\_Dim\_G)

Dimensional Record - Machining (QC\_Dim\_M)

Dimensional Record – Weld (QC\_Dim\_W)

Dimensional Record – Thermal Spray (QC\_Dim\_MG)

Dimensional Record – Engineered Pumps (QC\_Dim\_EP)

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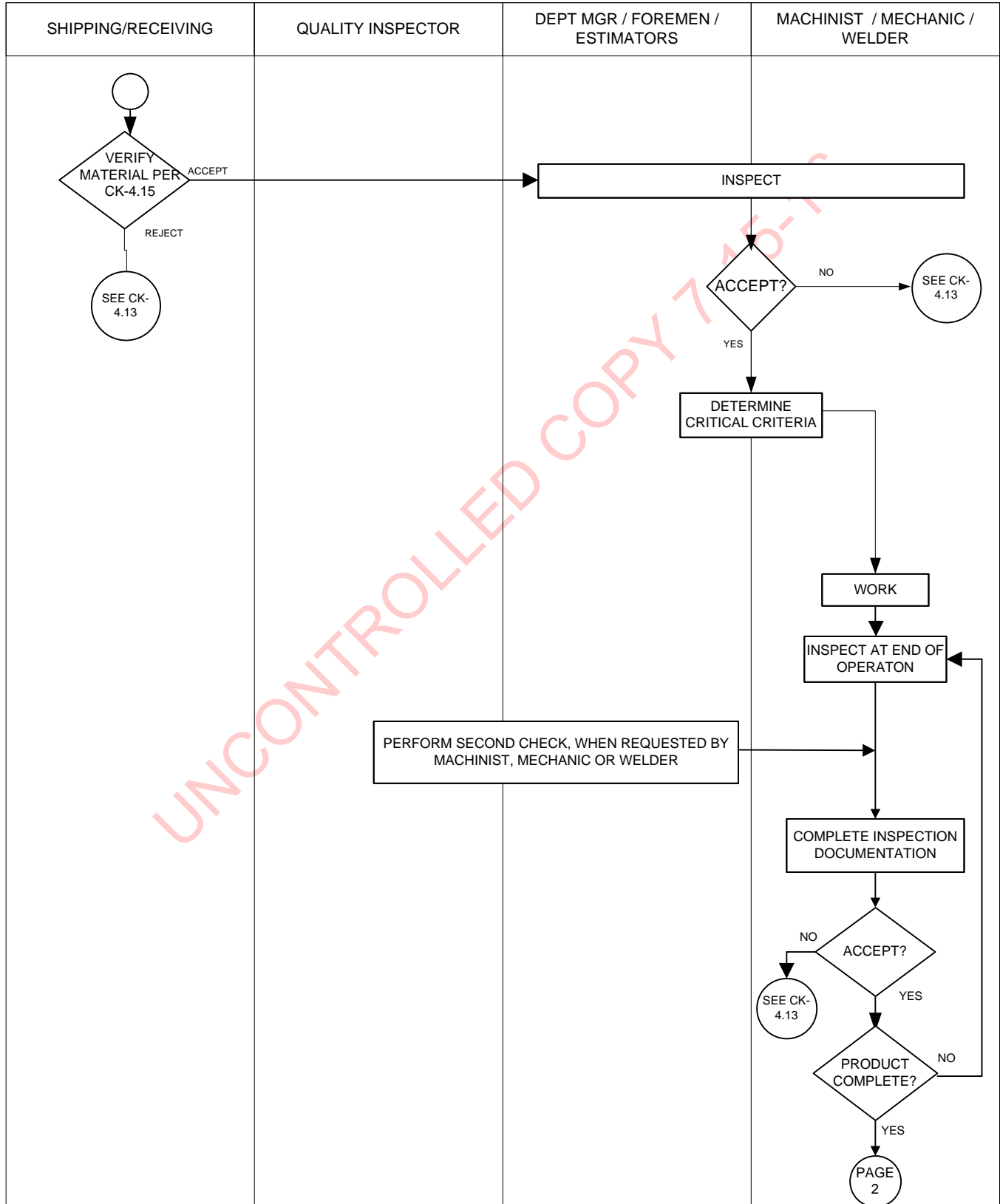
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**MONITORING AND MEASUREMENT**

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1 of 2

Reason for Revision: General review and update.

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02-07-14



Chalmers & Kubeck, Inc.  
Quality System Manual

Procedure No.

**PM-4.10**

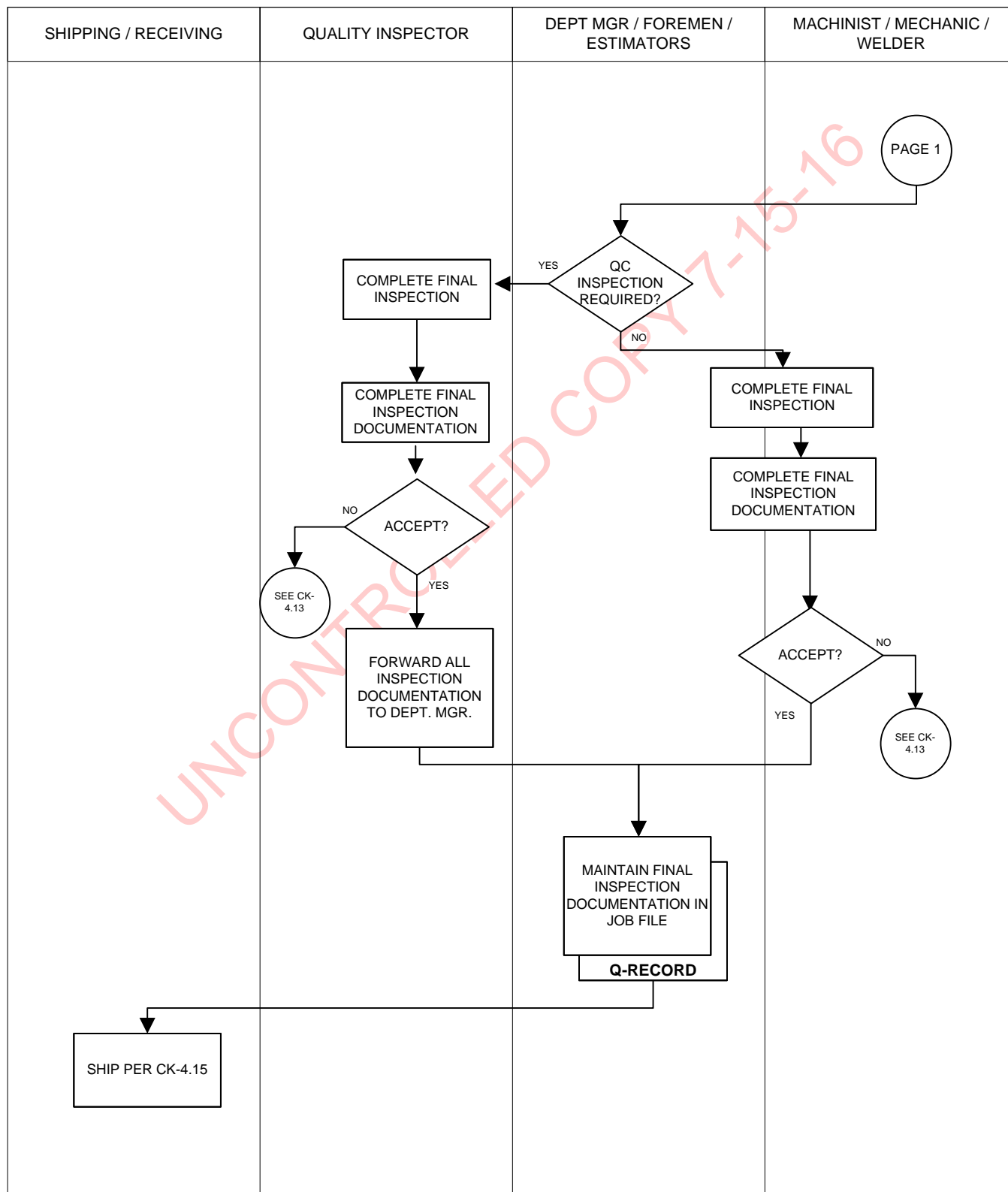
SUBJECT:

**MONITORING AND MEASUREMENT**

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2 of 2

Reason for Revision: General review and update.

Rev.1  
02-07-14



CHALMERS & KUBECK, Inc.

**DIMENSIONAL RECORD**  
CNC MACHINING

C&K JOB #:

CUSTOMER NAME: P.O. DUE DATE: PAGE \_\_\_ OF \_\_\_

PURCHASE ORDER #: PART / DRAWING #: DWG ITEM REV. SUB

JOB DESCRIPTION: CRITICAL DIMENSIONS: When +/- .002 or less Needs Second Check  
MARK "OUT OF TOLERANCE" DIMENSIONS with an "\*\*"

Line Item:	Drawing Dimension:	Critical Dimensions "X"		Operator Initials:	Checked By:	Piece ID -->	Actual Dim.	Actual Dim.	Actual Dim.	Actual Dim.
			V							

Reviewed By: Date: Comments:

CUSTOMER: NAME	P.O. DUE DATE:	PAGE ___ OF ___
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PURCHASE ORDER #:	PART / DRAWING #:	DWG ITEM	REV.	SUB
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JOB DESCRIPTION:	SERIAL #:	CRITICAL DIMENSIONS: When +/- .002 or less Needs Second Check MARK OUT OF TOLERANCE DIMENSIONS with an "**"
------------------	-----------	--

Line Item:	Critical Dimensions "X"		Rough Dimension			Finish Dimension		
	Drawing Dimension:	⌈ ↓ ⌋	Drawing Dim.	Actual Dim.	Sign Off	Actual Dim.	Sign Off	Checked By

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Reviewed By:	Date:	Comments:
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CUSTOMER NAME:

P.O. DUE DATE:

PAGE \_\_\_ OF \_\_\_

PURCHASE ORDER #:

PART / DRAWING #:

DWG ITEM REV.

SUB

JOB DESCRIPTION:

CRITICAL DIMENSIONS: When +/- .002 or less Needs Second Check  
MARK "OUT OF TOLERANCE" DIMENSIONS with an "\*\*"

Line Item:	Critical Dimensions "X" Drawing Dimension:	Piece ID -->		Actual Dim.	Actual Dim.	Actual Dim.	Actual Dim.
		Operator Initials:	Checked By:				

Reviewed By:

Date:

Comments:





# DIMENSIONAL RECORD

METALIZING & GRINDING

CUSTOMER NAME:

P.O. DUE DATE:

PAGE \_\_\_ OF \_\_\_

PURCHASE ORDER #:

PART / DRAWING #:

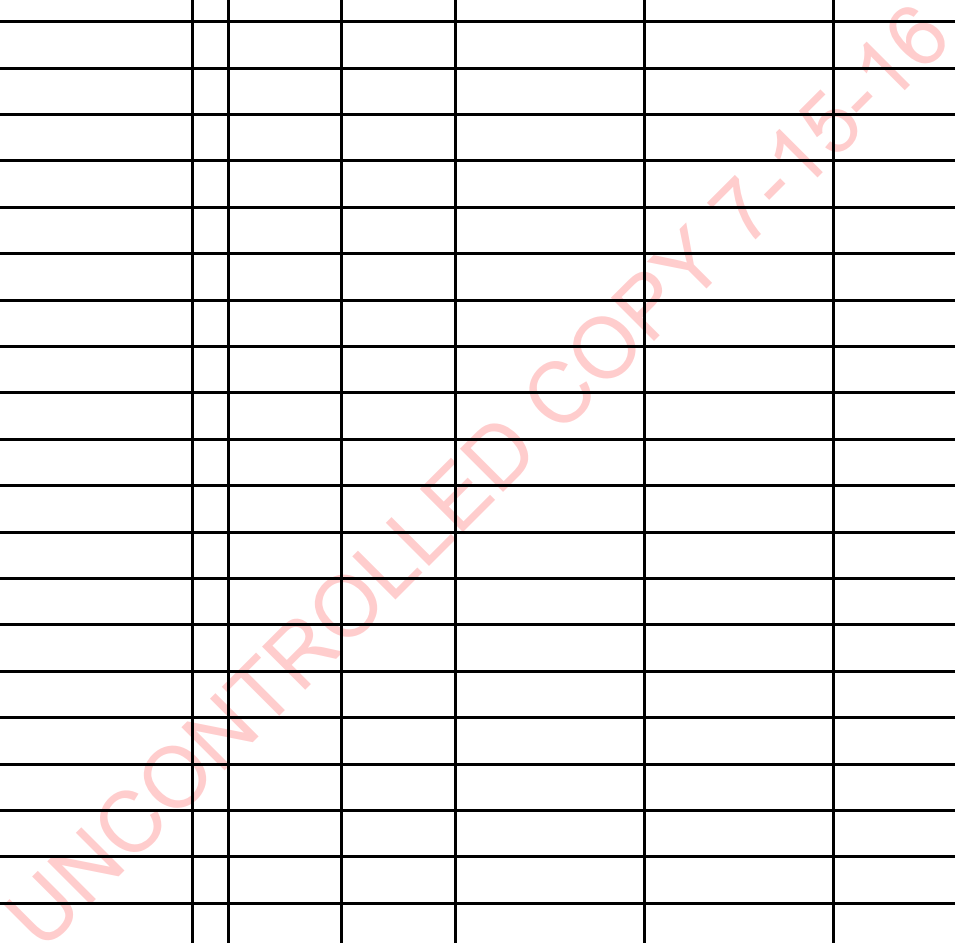
DWG ITEM REV.

SUB

JOB DESCRIPTION:

CRITICAL DIMENSIONS: When +/- .002 or less Needs Second Check  
MARK "OUT OF TOLERANCE" DIMENSIONS with an "\*\*"

Line Item:	Critical Dimensions "X" Drawing Dimension:	Operator Initials:	Checked By:	Piece ID -->			
				Actual Dim.	Actual Dim.	Actual Dim.	Actual Dim.



Reviewed By:

Date:

Comments:



# DIMENSIONAL RECORD

JOB NUMBER \_\_\_\_\_

ENGINEER: \_\_\_\_\_  
CUSTOMER NAME: \_\_\_\_\_

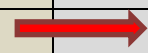
PART / DWG#: \_\_\_\_\_

REV. \_\_\_\_\_

JOB DESCRIPTION: \_\_\_\_\_

			PART ID			
CRITICAL DIMENSIONS "X" DRAWING DIMENSION :	OPERATOR INITIALS	CHECKED BY *	DATE	ROUGH MACH	FINISH MACH	ACTUAL DIM
<b>REVIEWED BY:</b>	<b>DATE:</b>	<b>COMMENTS:</b>				

UNCONTROL



\* CRITICAL DIMENSIONS: When tolerance is +/- .002" or less, a second check is required

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## 1.0 Purpose

To ensure all inspection, measuring and test equipment used to provide evidence of conformity of product to requirements are properly calibrated (by Quality Department), Accuracy Verified (by Shop personnel), controlled and maintained. Product requirements include those specified by the customer, those necessary for the production and delivery of the product, and any needed to meet regulatory requirements.

## 2.0 Scope

This procedure applies to all inspection, measuring and test equipment used to prove conformity of product to requirements.

## 3.0 Responsibility

### 3.1 Quality Department is responsible for the following per WI-4.11a:

- identifying all Quality Department inspection, measuring and testing equipment used during recorded inspections;
- identifying and calibrating all Department calibrated shop gage blocks, rod standards and Starrett 258 Digi-Chek used for Accuracy Verification.
- defining calibration measurements and the accuracy requirements;
- ensuring environmental conditions are suitable for calibration, inspections, measurements and tests;
- defining the extent and frequency of calibration and the adjustment and/or readjustment of calibration frequency as necessary;
- defining the calibration process including: equipment identification, location, acceptance criteria, safeguard requirements (if applicable), checking method, and recording of the calibration status;
- ensuring equipment is calibrated to a certified piece of equipment with a valid relationship to a nationally or internationally recognized measurement standard; where no such standard exists the basis used for calibration or verification shall be recorded on the Calibration Record (CalRec);
- assessing the validity of previous inspections if the inspection, measuring or testing equipment is found to be out of calibration, and determining whether the the equipment is sufficiently out of tolerance to have affected the capability of the equipment to demonstrate product conformance to requirements;
- maintaining the Calibration Inventory, Records and Certificates as quality records per CK-4.16, Control of Quality Records.

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### 3.2 All employees are responsible for:

- protecting the inspection, measuring and test equipment during handling, maintenance and storage;
- notifying the Quality Department when Inspection, Measuring and Test Equipment is purchased;
- **checking equipment Prior to Use to ensure accuracy per WI-4.11b.**
- determining the measurement to be made to demonstrate product conformance, and, to insure the accuracy of the IM&TE is capable of verifying the measurement.

### 4.0 References

Clause 7.6 of ISO 9001:2008 Control of Monitoring and Measuring Equipment  
Control of Monitoring and Measuring Equipment Process Map (PM-4.11)  
Calibration Record-CalRec  
Calibration Work Instruction – WI-4.11a  
Accuracy Verification Work Instruction WI-4.11b

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Quality System Manual

Procedure No.

**PM-4.11**

SUBJECT:

**CONTROL OF MONITORING AND MEASURING EQUIPMENT**

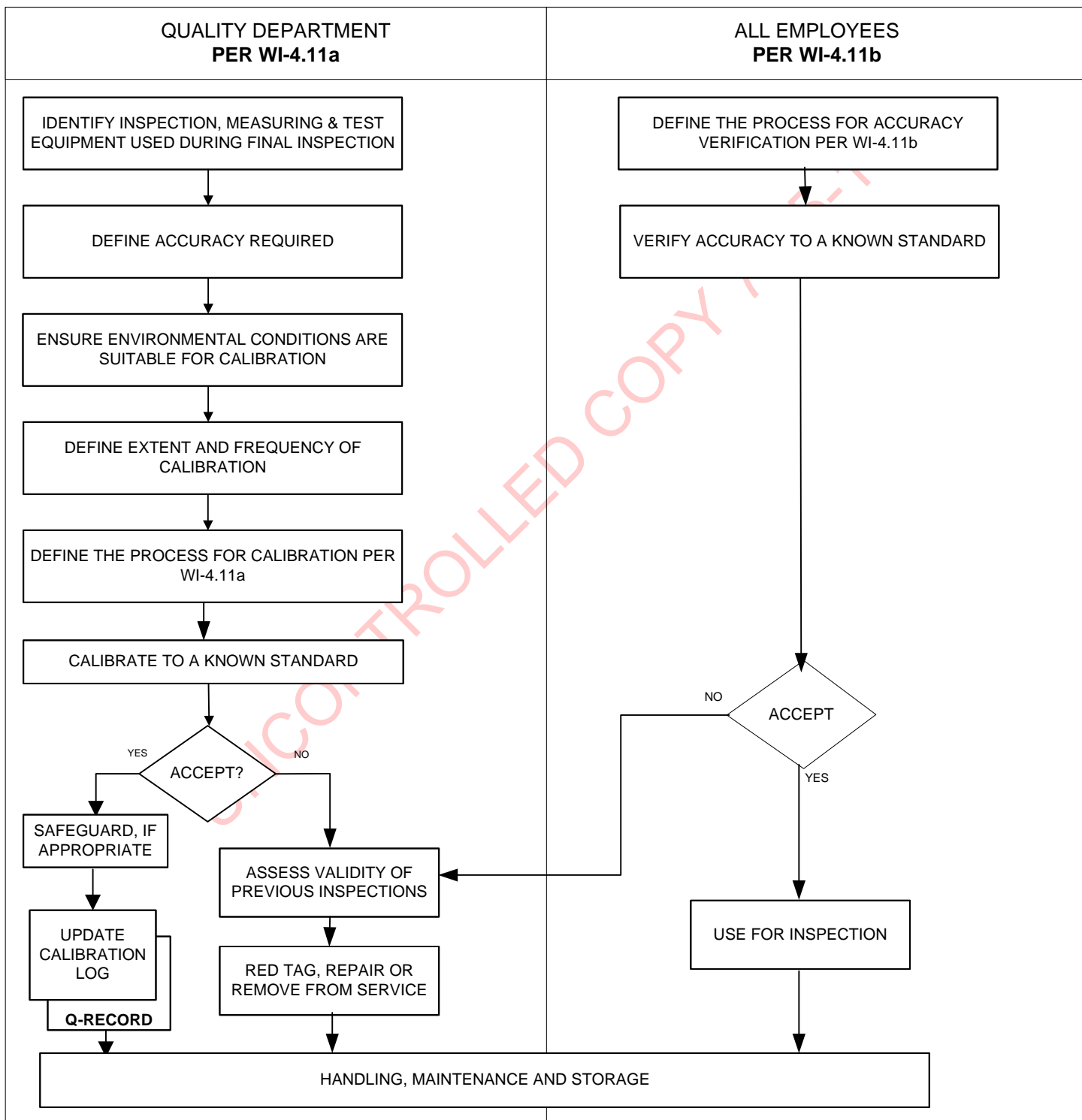
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# Chalmers & Kubeck, Inc. Calibration Record

Instrument:	Manufacturer / Model:	Range:
-------------	-----------------------	--------

Gage Control Number: \_\_\_\_\_ Department: \_\_\_\_\_

Calibrate per WI-4.11a

Due Date	Date Calibrated	Cycle: (months)	1 <sup>st</sup> Reading	2 <sup>nd</sup> Reading	3 <sup>rd</sup> Reading	Accept/ Reject	Initial	Temp: 65 - 85°F	Comments / Traceability #

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## Calibration Work Instruction

### Instructions for Quality Department

#### 1.0 Environmental Conditions

- 1.1 Calibration area shall be maintained at a temperature of 65 to 85 degrees Fahrenheit.
- 1.2 Cleanliness of calibration area shall be maintained at all times.
- 1.3 Calibrated gage blocks, rod standards or Starrett 258 Digi-Chek shall be used for calibration purposes only.

#### 2.0 In House Calibration Procedure

- 2.1 The gage or equipment shall be calibrated in accordance with the appropriate procedure found in this work instruction.
- 2.2 After calibration is successfully completed, the inspector records the equipment serial number, name of the equipment, location of the equipment, date calibrated, date due, results of the calibration and initials the Inspection, Measuring and Test Equipment Calibration Record. The I, M and TE Calibration Record is then returned to the file under the appropriate month based on calibration frequency.
- 2.3 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

#### 3.0 Dial Vernier Calipers / Digital Vernier Calipers.

- 3.1 Clean and oil caliper paying strict attention to rack and measuring surfaces.
- 3.2 Visually inspect caliper for physical damage paying strict attention to measuring surfaces and teeth on rack.

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- 3.3 Accuracy of calipers to be checked at three different points distributed across the entire range using master gage blocks. Check inside, outside and depth measurements (3 points each).
- 3.4 Record caliper readings on the calibration record.
- 3.5 Variations from nominal in excess of .0005 inch shall be corrected and noted on the calibration record along with the corrected readings.
- 3.6 After all acceptance criteria has been met a calibration tag shall be affixed to the instrument or container.
- 3.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

#### **4.0 Vernier Calipers.**

- 4.1 Clean and oil caliper scale and measuring surfaces.
- 4.2 Visually inspect for physical damage paying strict attention to measuring surfaces.
- 4.3 Accuracy to be checked at three different points distributed across entire range using master gage blocks. Check inside and outside measurements (3 points each).
- 4.4 Record caliper readings on the calibration record.
- 4.5 Variations from nominal in excess of .0005 inch shall be corrected and noted on the calibration record along with the corrected readings.
- 4.6 After all acceptance criteria has been met a calibration tag shall be affixed to the instrument or container.
- 4.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.



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## 5.0 Starrett No. 258 Digi-Chek

- 5.1 Clean and oil micrometer head, micrometer spindle and gage block stack.
- 5.2 Visually inspect for physical damage paying strict attention to gage block stack polished surfaces.
- 5.3 Set the micrometer digital readout at the .000 inch mark. Set the micrometer head scale to .0000 inch mark.
- 5.4 Use a 1 inch master gage block, insert the 1 inch master gage block into the 1 inch (bottom) master gage block stack.
- 5.5 Use a 1 inch master gage block and check for .000 inch on the digital readout and .0000 inch on the micrometer head. If instrument calibration is correct both readings will be zero.
  - 5.5.1 Note: if both readings are not zero proceed as follows. Using the ½ inch hex wrench supplied, turn ½ inch hex adjusting screw clockwise to raise, or counterclockwise to lower, until both readings are zero. In setting zero it is advisable to adjust screw clockwise to obtain the final zero setting.
- 5.6 Accuracy to be checked at six different points distributed across entire range using master gage blocks.
- 5.7 Record dimensional readings on the calibration record.
- 5.8 Variations from nominal in excess of .0001 inch shall be corrected and noted on the calibration record along with the corrected readings.
- 5.9 After all acceptance criteria has been met a calibration tag shall be affixed to the instrument or container.
- 5.10 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

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## 6.0 Outside Micrometer

- 6.1 Clean and oil micrometer head. Clean anvils by drawing a piece of hard finish paper between them under pressure. Back off anvil before removing the paper to prevent pieces of lint from being left on anvils.
- 6.2 Visually inspect micrometer for physical damage, paying strict attention to the measuring face of anvils.
- 6.3 Accuracy of micrometer to be checked at three different points distributed across the entire range using master blocks or rods.
- 6.4 Record micrometer readings on the calibration record.
- 6.5 Variations from nominal in excess of .0005 inch shall be corrected and noted on the calibration record along with the corrected readings.
- 6.6 After all acceptance criteria has been met a calibration tag shall be affixed to the instrument or container.
- 6.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## 7.0 Test Indicators

- 7.1 Clean and oil indicator.
- 7.2 Visually inspect indicator.
- 7.3 Check for physical damage.
- 7.4 Check contact point for wear using a minimum 5X magnifying lens.
- 7.5 Check contact point by a side to side motion, no play shall register on dial.
- 7.6 Check contact pressure in both directions, watch for any tendency to stick.

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- 7.7 Accuracy of indicator to be checked at three different points distributed across entire range using master gage blocks.
- 7.8 Record dimensional readings on the calibration record.
- 7.9 Variations in excess of ½ the smallest graduation on indicator shall be corrected in accordance with manufacturers instruction manual.
- 7.10 After all inspection criteria has been met, a calibration tag will be affixed to the instrument or container.
- 7.11 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## **8.0 Mechanical Dial Indicators**

- 8.1 Clean and oil indicator.
- 8.2 Visually inspect indicator.
- 8.3 Check for physical damage paying strict attention to spindle.
- 8.4 Check contact point for wear using a minimum 5X magnifying lens.
- 8.5 Accuracy of indicator to be checked at three different points distributed across entire range using master gage blocks.
- 8.6 Record dimensional readings on the calibration record.
- 8.7 Variations in excess of ½ the smallest graduation on indicator shall be corrected in accordance with manufacturer's instruction manual or sent to a qualified outside source for correction.
- 8.8 After all acceptance criteria has been met a calibration tag shall be affixed to the instrument or container.

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8.9 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## **9.0 Inside Micrometers**

- 9.1 Clean and oil micrometer head and all extensions.
- 9.2 Visually inspect micrometer head and extensions for physical damage. Using a minimum 5X magnifying lens check measuring surfaces for wear.
- 9.3 Accuracy of micrometer head to be checked at three different points distributed across entire range of set using master gage blocks.
- 9.4 Accuracy of extensions to be checked at intervals distributed across entire range of set using master shop rods and a vernier caliper.
- 9.5 Record dimensional readings on the calibration record.
- 9.6 Variations from nominal in excess of .0005 inch shall be corrected and noted on calibration record along with the corrected readings.
- 9.7 Once acceptance criteria have been met, a calibration tag shall be affixed to the instrument or container.
- 9.8 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## **10.0 Depth Micrometers**

- 10.1 Clean and oil micrometer head and interchangeable stems.
- 10.2 Visually inspect for physical damage paying strict attention to measuring surfaces and condition of stems.

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- 10.3 Accuracy to be checked at three different points distributed across entire range of micrometer head using master gage blocks or rod standards.
- 10.4 Record dimensional readings on the calibration record.
- 10.5 Variations from nominal in excess of .0005 inch shall be corrected and noted on calibration record along with the corrected readings.
- 10.6 After all acceptance criteria has been met a calibration tag shall be affixed to the instrument or container.
- 10.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## **11.0 Bore Gage**

- 11.1 This equipment is calibrated with each use.
- 11.2 Clean contact surfaces of the dial bore mechanism.
- 11.3 Visually inspect for physical damage. Using a minimum 5X magnifying lens check for wear on contact points.
- 11.4 Accuracy to be checked at three different points distributed across entire range of indicator using master gage blocks.
- 11.5 Record dimensional readings on the calibration record.
- 11.6 Variations from nominal in excess of .0001 inch shall be corrected and noted on calibration record along with corrected readings.
- 11.7 After all acceptance criteria has been met, the bore gage may be used for inspection and acceptance/rejection of product.
- 11.8 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

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## 12.0 Vernier Height Gage

- 12.1 Clean and oil caliper scale and measuring surfaces.
- 12.2 Visually inspect for physical damage paying strict attention to measuring surfaces.
- 12.3 Accuracy to be checked at three different points distributed across entire range using master gage blocks.
- 12.4 Record dimensional readings on the calibration record.
- 12.5 Variations from nominal in excess of .001 inch shall be corrected and noted on calibration record along with corrected readings.
- 12.6 Once acceptance criteria have been met, a calibration tag shall be affixed to the instrument or container.
- 12.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## 13.0 Rockwell Hardness Tester

- 13.1 This equipment is calibrated with each use.
- 13.2 Choose a test block that is within 10 Rockwell points of the hardness level and scale you will be using.
- 13.3 Be sure the indenter shoulder and its mating plunger rod end are clean.
- 13.4 Be certain the spot anvil shoulder and its mating end of the elevating screw are clean. (No rust, oil, dirt, etc.)
- 13.5 Be sure the test block you are using has NOT been used on the bottom side.
- 13.6 Place the test block on the spot anvil.
- 13.7 Bring the test block up smoothly, and without impact, into contact with the indenter.

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- 13.8 Continue raising the test block until you reach the “Set” position.
- 13.9 Apply the major load to the test block, being sure nothing touches the test block other than the spot anvil and the indenter.
- 13.10 Disregard the first two readings you take, as the indenter and anyil must be “seated” under load.
- 13.11 At the 3<sup>rd</sup> test, record your reading on the scale you are using. (Ex. 63.0 HRC).
- 13.12 Take at least 3 tests, being sure the mean of these values falls within the tolerance marked on the block.
- 13.13 Once acceptance criteria have been met the shop inspection equipment may be used for inspection and acceptance/rejection of product.
- 13.14 Shop inspection equipment not meeting the acceptance criteria after correction shall be repaired, sent to an outside repair facility for repair or be removed from service.

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## Accuracy Verification Work Instructions

### Instructions for Shop Personnel

#### 1.0 Scope

This work instruction applies to all inspection equipment used by shop personnel whether personally owned or owned by the responsible Chalmers & Kubeck division.

#### 2.0 General Conditions

- 2.1 Accuracy verification shall be performed by operators **prior to shop inspection equipment use** to insure accuracy.
- 2.2 Accuracy verification shall be performed at the same temperature as that in which the shop inspection equipment will be used.
- 2.3 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.
- 2.4 Calibrated shop gage blocks, rod standards or Starrett 258 Digi-Chek shall be used for accuracy verification purposes only.
- 2.5 Calibration standards which are shared interdepartmentally shall have their control number noted on the inspection record for traceability purposes.
- 2.6 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

#### 3.0 Dial Vernier Calipers / Digital Vernier Calipers.

- 3.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.
- 3.2 Clean and oil caliper paying strict attention to rack and measuring surfaces.



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- 3.3 Visually inspect caliper for physical damage paying strict attention to measuring surfaces and teeth on rack.
- 3.4 Accuracy of calipers to be checked at two different points distributed across the range using calibrated shop gage blocks, rod standards or Starrett 258 Digi-Chek. Check inside, outside and depth measurements as appropriate (2 points).
- 3.5 Variations from nominal in excess of .001 inch shall be corrected.
- 3.6 After all acceptance criteria has been met, the shop inspection equipment may be used for inspection and acceptance/rejection of product.
- 3.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

#### **4.0 Vernier Calipers**

- 4.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.
- 4.2 Clean and oil caliper scale and measuring surfaces.
- 4.3 Visually inspect for physical damage paying strict attention to measuring surfaces.
- 4.4 Accuracy to be checked at two different points distributed across the range using calibrated shop gage blocks, rod standards or Starrett 258 Digi-Chek. Check inside and outside measurements as appropriate (2 points).
- 4.5 Variations from nominal in excess of .001 inch shall be corrected.
- 4.6 After all acceptance criteria have been met, the shop inspection equipment may be used for inspection and acceptance/rejection of product.
- 4.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

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## 5.0 Outside Micrometers

- 5.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.
- 5.2 Clean and oil micrometer head. Clean anvils by drawing a piece of hard finish paper between them under pressure. Back off anvil before removing the paper to prevent pieces of lint from being left on anvils.
- 5.3 Visually inspect micrometer for physical damage, paying strict attention to the measuring face of anvils.
- 5.4 Accuracy of micrometer to be checked at two different points distributed across the range using calibrated shop blocks or rod standards.  
  
Note: gage blocks or rod size used will differ depending on the range of the micrometer being verified.
- 5.5 Variations from nominal in excess of .0005 inch shall be corrected.
- 5.6 After all acceptance criteria have been met, the shop inspection equipment may be used for inspection and acceptance/rejection of product.
- 5.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## 6.0 Dial Indicators (used for final inspection tolerance of .0005 inch or less)

- 6.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.
- 6.2 Clean and visually inspect indicator.
- 6.3 Check for physical damage paying strict attention to spindle.
- 6.4 Accuracy of indicator to be checked at two different points distributed across the range using master gage blocks.

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6.5 Variations in excess of ½ the smallest graduation on indicator shall be corrected in accordance with manufacturer's instruction manual or sent to a qualified outside source for correction.

6.6 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## **7.0 Inside Micrometers**

7.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.

7.2 Clean and oil micrometer head and extension.

7.3 Visually inspect micrometer head and extension for physical damage. Check measuring surfaces for wear.

7.4 Accuracy of micrometer head to be checked at two different points distributed across the range using calibrated shop gage blocks, rod standards or Starrett 258 Digi-Chek.

7.5 Accuracy of the extension to be checked at intervals distributed across the range of the extension using calibrated shop rods and a vernier caliper.

7.6 Variations from nominal in excess of .0005 inch shall be corrected.

7.7 After all acceptance criteria have been met, the shop inspection equipment may be used for inspection and acceptance/rejection of product.

7.8 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

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## 8.0 Depth Micrometers

- 8.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.
- 8.2 Clean and oil micrometer head and interchangeable stem.
- 8.3 Visually inspect for physical damage paying strict attention to measuring surfaces and condition of stems.
- 8.4 Accuracy to be checked at two different points distributed across the range of micrometer head using calibrated shop gage blocks, rod standards or the Starrett 258 Digi-Chek.
- 8.5 Variations from nominal in excess of .0005 inch shall be corrected.
- 8.6 After all acceptance criteria have been met, the shop inspection equipment may be used for inspection and acceptance/rejection of product.
- 8.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## 9.0 Bore Gage

- 9.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.
- 9.2 Clean contact points of dial bore mechanism.
- 9.3 Visually inspect for physical damage. Check for wear on contact points.
- 9.4 Accuracy to be checked two times at gage set point using calibrated shop gage blocks, calibrated ring gages or Starrett 258 Digi-Chek to insure repeatability of the gage at the set point.
- 9.5 Variations from nominal in excess of .0001 inch shall be corrected.

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9.6 After all acceptance criteria have been met, the shop inspection equipment may be used for inspection and acceptance/rejection of product.

9.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## **10.0 Vernier Height Gage**

10.1 Shop personnel must verify calibration status of the standards used for accuracy verification prior to use.

10.2 Clean and oil caliper scale and measuring surfaces.

10.3 Visually inspect for physical damage paying strict attention to measuring surfaces.

10.4 Accuracy to be checked at two different points distributed across the range using calibrated shop gage blocks, rod standards or Starrett 258 Digi-Chek.

10.5 Variations from nominal in excess of .001 inch shall be corrected.

10.6 Once acceptance criteria have been met, the shop inspection equipment may be used for inspection and acceptance/rejection of product.

10.7 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

## **11.0 Rockwell Hardness Tester**

11.1 This equipment is accuracy verified with each use.

11.2 Choose a test block that is within 10 Rockwell points of the hardness level and scale you will be using.

11.3 Be sure the indenter shoulder and its mating plunger rod end are clean.

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- 11.4 Be certain the spot anvil shoulder and its mating end of the elevating screw are clean. (No rust, oil, dirt, etc.)
- 11.5 Be sure the test block you are using has NOT been used on the bottom side.
- 11.6 Place the test block on the spot anvil.
- 11.7 Bring the test block up smoothly, and without impact, into contact with the indenter.
- 11.8 Continue raising the test block until you reach the "Set" position.
- 11.9 Apply the major load to the test block, being sure nothing touches the test block other than the spot anvil and the indenter.
- 11.10 Disregard the first two readings you take, as the indenter and anvil must be "seated" under load.
- 11.11 At the 3<sup>rd</sup> test, record your reading on the scale you are using. (Ex. 63.0 HRC).
- 11.12 Take at least 3 tests, being sure the mean of these values falls within the tolerance marked on the block.
- 11.13 Once acceptance criteria have been met the shop inspection equipment may be used for inspection and acceptance/rejection of product.
- 11.14 Shop inspection equipment not meeting the acceptance criteria after correction shall be red tagged with the Shop Nonconformance tag. The equipment may be repaired in-house, sent to an outside repair facility for repair or shall be removed from service.

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No. <b>CK-4.12</b>
SUBJECT: <b>MONITORING AND MEASUREMENT STATUS OF PRODUCT</b>	Page: 1 of 1
Reason for Revision: Revised to ISO 9001:2008 requirements.	Rev.1 09-01-09

## **1.0 Purpose**

To ensure results of monitoring and measurement activities are documented; and that all activities to demonstrate conformity to product requirements have been performed and the results comply with requirements.

## **2.0 Scope**

This procedure applies to products requiring inspection and testing to verify compliance with specified requirements.

## **3.0 Responsibility**

### **3.1 Mechanics, Machinists and Welders are responsible for:**

- performing the inspections and tests;
- completing the Dimensional Record per CK-4.10;
- verifying results obtained comply with requirements;
- notifying the department manager of nonconforming product per CK-4.13;
- completing the Shipping Release Tag in the absence of the Department Manager or Foreman per CK-4.10.

### **3.2 All employees are responsible for ensuring the product is identified per CK-4.8.**

## **4.0 References**

Clause 7.5.3 of ISO 9001:2008 Identification and Traceability

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No. <b>CK-4.13</b>
SUBJECT: <b>CONTROL OF NONCONFORMING PRODUCT</b>	Page 1 of 4
Reason for Revision: General review and update.	Rev.2 02-07-14

## 1.0 Purpose

To ensure that product which does not conform to product requirements is identified and controlled to prevent it unintended use or delivery. Nonconforming product shall be dealt with in one or more of the following ways:

- By taking action to eliminate the detected nonconformity;
- By authorizing its use, release or acceptance under concession by a relevant authority, and, where applicable, by the customer;
- By taking action to preclude its original intended use or application;
- By taking action appropriate to the effects, or potential effects, of the nonconformity when nonconforming product is detected after delivery or use has started.

## 2.0 Scope

This procedure applies both Shop and Supplier Nonconformances relative to products.

## 3.0 Responsibility

### 3.1 Supplier Nonconformances

**3.1.1** Department Managers, Foremen and Estimators are responsible for:

- identifying and controlling nonconforming product by use of the Supplier Nonconforming Tag;
- notifying the supplier when nonconforming product is received;
- disposition the nonconforming product, it may be:
  - a) reworked to meet specified requirements;
  - b) authorize its use, release or acceptance under concession and, where applicable, by the customer;
  - c) regraded for alternative applications;
  - d) rejected or scrapped;
- report to the customer (when required by contract) the proposed use or repair of product which does not conform to the specified requirements;
- issuing Supplier Nonconformance Reports as necessary and forwarding a copy to the Quality Manager;
- evaluating the trend of supplier nonconformances with the Quality Manager
- initiating and verifying the corrective and preventive action as required.
- reinspecting (to original requirements) a nonconforming product once the product has been reworked.



<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No. <b>CK-4.13</b>
SUBJECT: <b>CONTROL OF NONCONFORMING PRODUCT</b>	Page 2 of 4
Reason for Revision: General review and update.	Rev.2 02-07-14

**3.1.2** Shipping / Receiving is responsible for:

- identifying and controlling nonconforming product by use of the Supplier Nonconforming Tag;
- notifying the appropriate Department Manager or Foreman when a nonconforming product is received from a supplier:

**3.1.3** The Quality Manager is responsible for:

- logging, trending and evaluating all supplier nonconformances;
- verifying the corrective action from suppliers as required;
- using supplier trends for corrective and preventive action analysis;
- maintaining the log, trends and Supplier Nonconformances as quality records per CK-4.16, Control of Quality Records and forwarding this information to Department Managers, Foremen or Estimators for use during Supplier Evaluations.

**3.1.4** Machinists, Mechanics, Welders, and Weld Inspectors are responsible for:

- notifying the Department Manager or Foreman when they identify a possible nonconforming product in process;
- generating Supplier Nonconformance Tags;
- reinspecting (to original requirements) a nonconforming product once the product has been reworked.

**3.2 Shop Nonconformances**

**3.2.1** The Department Manager, Foremen and Estimators are responsible for:

- identifying and controlling nonconforming product by use of the Shop Nonconformance Tag;
- generating Shop Nonconformance Reports as required;
- reviewing nonconforming products and recording the nonconformance on the Shop Nonconformance Report;
- dispositioning the nonconforming product, it may be:
  - a) reworked to meet specified requirements;
  - b) authorize its use, release or acceptance under concession and, where applicable, by the customer;
  - c) regraded for alternative applications;
  - d) rejected or scrapped;
- report to the customer (when required by contract) the proposed use or repair of product which does not conform to the specified requirements;

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>		Process No. <b>CK-4.13</b>
SUBJECT: <b>CONTROL OF NONCONFORMING PRODUCT</b>		Page 3 of 4
Reason for Revision: General review and update.		Rev.2 02-07-14

### 3.2.1 Shop Nonconformances (continued)

- forwarding a copy of the Shop Nonconformance Reports to the Quality Manager;
- notifying the customer when nonconforming product is detected after delivery or use has started and issuing a Shop Nonconformance Report;
- reinspecting (to original requirements) a nonconforming product once the product has been reworked.

### 3.2.2 The Quality Manager is responsible for:

- logging, trending and evaluating all shop nonconformances;
- issuing Shop Nonconformance Reports when necessary;
- verifying the Shop Initial Corrective Actions as required;
- using shop trends for corrective and preventive action;
- maintaining the log, trends and Shop Nonconformances as Quality Records per CK-4.16, Control of Quality Records.

### 3.2.3 Machinists, Mechanics, Welders, and Weld Inspectors are responsible for:

- notifying the Department Manager, Foremen or Estimator when they identify a possible nonconforming product in process;
- generating Shop Nonconformance tags;
- reinspecting (to original requirements) a nonconforming product once the product has been reworked.
- notifying the Department Manager, Foreman or Estimator when nonconforming product is detected after delivery or use has started.

## 4.0 Delivered or In Use Nonconforming Product

- 4.1 When nonconforming product is detected after delivery or use has started the customer shall be immediately notified and a Shop or Supplier Nonconformance Report issued.

## 5.0 References

Clause 8.3 of ISO 9001:2008 Control of Nonconforming Product  
Control of Nonconforming Product Process Map (Suppliers) (PM-4.13a)  
Control of Nonconforming Product (Shop) Process Map (PM-4.13b)  
Shop Nonconformance Report (ShopNonCon)  
Supplier Nonconformance Form (SupNonCon)

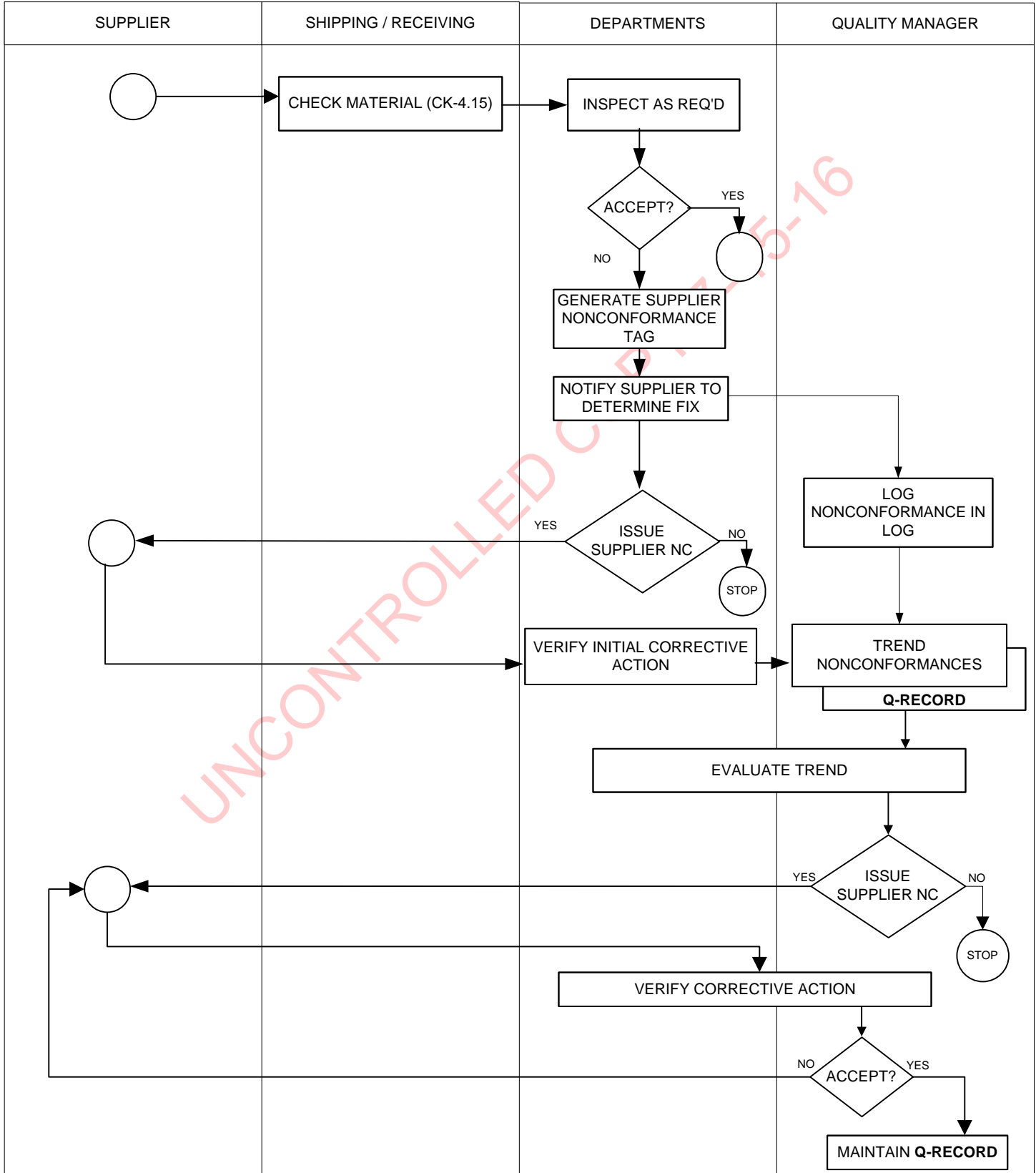
SUBJECT:

**CONTROL OF NONCONFORMING PRODUCT (SUPPLIER)**

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1 of 1

Reason for Revision: General review and update.

Rev.1  
02-07-14



**Chalmers & Kubeck, Inc.**  
Quality System Manual

Procedure No.

**PM-4.13b**

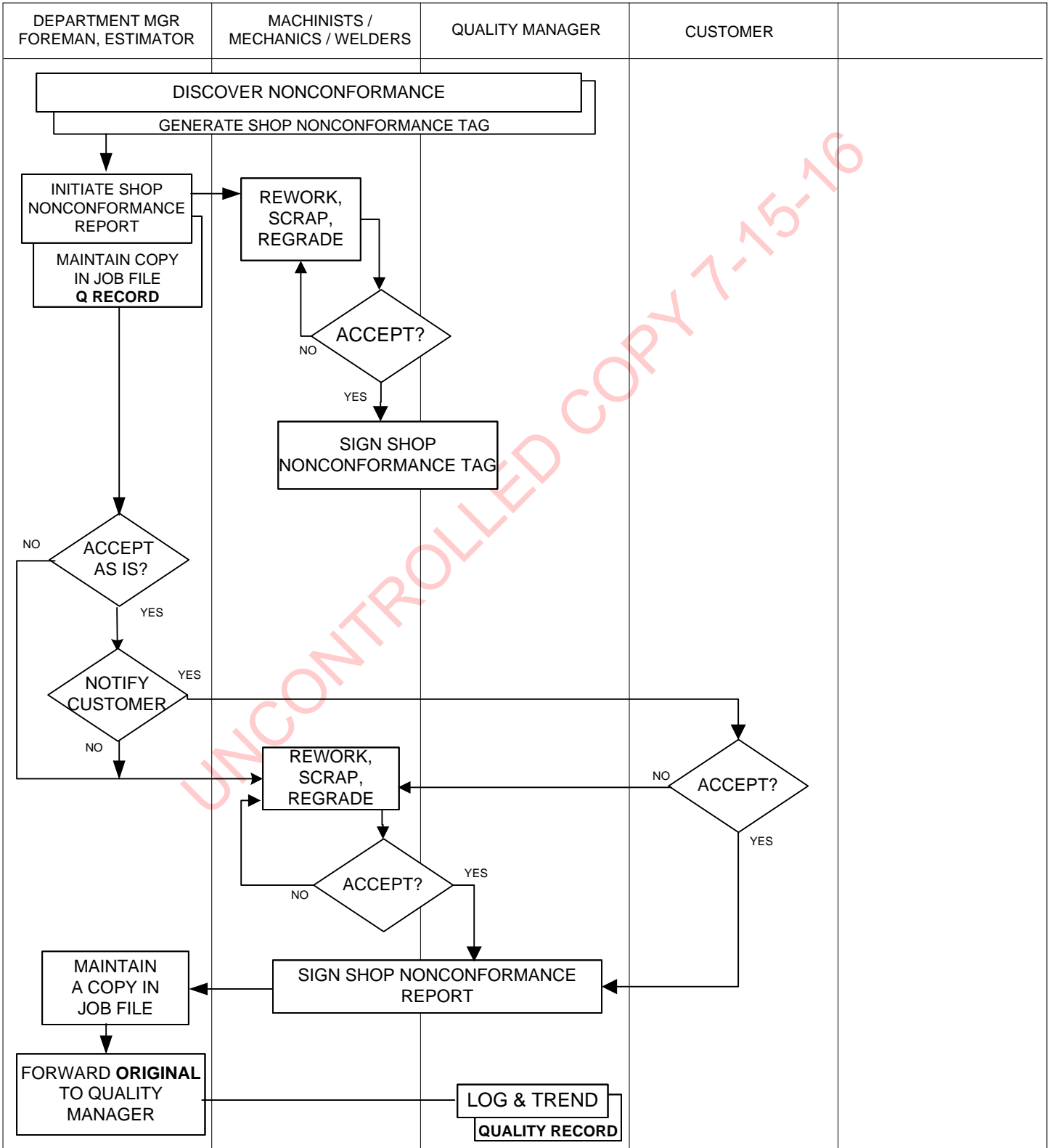
SUBJECT:

**CONTROL OF NONCONFORMING PRODUCT (SHOP)**

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1 of 1

Reason for Revision: General review and update.

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02-07-14



<b>Chalmers &amp; Kubeck, Inc.</b> Department: _____	<b>Supplier Nonconformance Report</b>	Job #: _____
---	---	--------------

Supplier Name: _____	Ordered By: _____
Part / Drawing #: _____	Rev.: _____
Promise Date: _____	Delivery Date: _____
Qty Ordered: _____	Qty Defective: _____
Job Title: _____	
Customer PO # / Item # (if customer supplied material): _____	

<b>Description of Nonconformance:</b> _____ _____	
<b>Cause of Nonconformance:</b> _____ _____	
<b>Initial Corrective Actions Taken:</b> _____ _____	
Reported by: _____	Date: _____
Reviewed by: _____	Date: _____

<b>Disposition:</b> (check one)	Use As Is: <input type="checkbox"/>	Repair: <input type="checkbox"/>	Replace: <input type="checkbox"/>	Scrap Do Not Replace: <input type="checkbox"/>	Return to Supplier: <input type="checkbox"/>
<b>Comments:</b> _____					
<b>Disposition Approved By:</b> _____			<b>Date:</b> _____		

<b>Impact:</b>	Made Job Late By: (days) _____
	Extra Labor: (hours) _____
	Other: _____
Reported by: _____	Date: _____

<b>Chalmers &amp; Kubeck, Inc.</b>  Department: _____	<b>Shop Nonconformance Report</b>	Job #: _____  Internal Use: _____
---	-----------------------------------	---

Customer Name: _____	Quantity: _____
Description: _____	_____
Part / Drawing #: _____	Rev.: _____

Description of Nonconformance: _____ _____ _____
Reported By: _____ Date: _____

<b>Cause of Nonconformance:</b>	
Operator Error: (check one) <input type="checkbox"/>	_____
Equipment Error: <input type="checkbox"/>	_____
Incorrect Instructions: <input type="checkbox"/>	_____
Incorrect Drawing: <input type="checkbox"/>	_____
Operator: _____	Date: _____
Initial Corrective Actions Taken: _____ _____ _____	
Reported by: _____	Date: _____
Reviewed by: _____	Date: _____

<b>Disposition:</b> Use As Is: <input type="checkbox"/>	Scrap Do Not Replace: <input type="checkbox"/>
(check one) Repair: <input type="checkbox"/>	Return to Supplier: <input type="checkbox"/>
Replace: <input type="checkbox"/>	
Comments: _____ _____	
Disposition Approved By: _____	Date: _____

<b>Cost of Repairs:</b>	Labor: _____
	Material: _____
	Outside Services: _____
	Total Cost: _____
Reported by: _____	Date: _____

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No. <b>CK-4.14</b>
SUBJECT: <b>CORRECTIVE AND PREVENTIVE ACTION</b>	Page: 1 of 3
Reason for Revision: General revision and update.	Rev.2 02-07-14

## 1.0 Purpose

To ensure causes of significant problems affecting quality are:

- determined to take Corrective Action to eliminate the cause of the nonconformance in order to prevent their recurrence.
- determined to take Preventive Action to eliminate the cause of the potential nonconformance in order to prevent their occurrence.

## 2.0 Scope

This procedure applies to the gathering of information, analysis of data, determination, implementation and verification of corrective and preventive actions taken to eliminate the causes of significant present and potential nonconformance's impacting products supplied by Chalmers & Kubeck, Inc.

## 3.0 Corrective Action

**3.1** Actions shall be taken to eliminate the cause of nonconformities in order to prevent recurrence. Corrective Actions taken shall be appropriate to the effects of the nonconformities encountered. Corrective Action shall include:

- reviewing nonconformities (including Customer Complaints);
- determining the causes of nonconformities;
- evaluating the need for action to ensure that nonconformities do not recur;
- determining and implementing action needed;
- records of the results of action taken;
- reviewing the effectiveness of the corrective action taken.

## 4.0 Preventive Action

**4.1** Actions shall be taken to eliminate the causes of potential nonconformities in order to prevent their occurrence. Preventive Actions shall be appropriate to the effects of the potential problems. Preventive Action shall include:

- determining potential nonconformities and their causes;
- evaluating the need for action to prevent occurrence of nonconformities;
- determining and implementing action needed;
- records of the results of action taken;
- reviewing the effectiveness of the preventive action taken.

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>		Process No. <b>CK-4.14</b>
SUBJECT: <b>CORRECTIVE AND PREVENTIVE ACTION</b>		Page: 2 of 3
Reason for Revision: General revision and update.		Rev.2 02-07-14

## 5.0 Responsibility

### 5.1 The Quality Manager is responsible for:

- monitoring customer perceptions relating to customer requirements on an annual basis using the Customer Satisfaction Survey (CustSatSurvey);
- maintaining Customer Complaints as a Quality record per CK-4.16;
- compiling data through collection of Shop Nonconformance Reports, Supplier Nonconformance Reports, Customer Complaints, Customer Satisfaction Surveys and results from Internal Quality Audits;
- creating and submitting a report to Executive Management;
- maintaining Corrective / Preventive Action Requests (CAR/PAR) as a Quality record per CK-4.16.
- verifying the implementation and effectiveness of completed corrective or preventive actions during the Executive Management Review.

### 5.2 Executive Management is responsible for:

- reviewing the report from the Quality Manager to determine the most prominent problems;
- submitting a Corrective Action Request / Preventive Action Request (CAR/PAR) to the Department Managers;
- reviewing plans for corrective and preventive action;
- determining the appropriate plans to initiate;
- assisting in the implementation of approved plans;

### 5.3 Department Managers, Foremen and Estimators are responsible for:

- developing corrective and preventive action plans when Executive Management issues a Corrective Action Request / Preventive Action Request (CAR/PAR) to their department;
- reviewing with Executive Management the suggested corrective or preventive action plan;
- implementing the approved corrective or preventive action plan;
- forwarding customer complaints to the General Manager and Quality Manager using the Customer Complaint Report (CustComp) for corrective and preventive action analysis.
- initiating a Customer Complaint Report (CustComp) for all nonconforming material returned by the customer.

### 5.4 Salesmen are responsible for forwarding customer complaints to the General Manager and Quality Manager using Customer Complaint Report (CustComp) for corrective and preventive action analysis.



<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.14</b>
SUBJECT: <b>CORRECTIVE AND PREVENTIVE ACTION</b>	Page: 3 of 3
Reason for Revision: General revision and update.	Rev.2 02-07-14

**5.5** All employees are responsible for notifying General Manager / Department Managers of customer complaints.

**6.0 References**

Clause 8.5.2 & 8.5.3 of ISO 9001:2008 Corrective Action & Preventive Action  
 Corrective and Preventive Action Process Map (PM-4.14)  
 Corrective Action / Preventive Action Request (CAR / PAR)  
 Customer Complaint Report (CustComp)  
 Customer Satisfaction Survey (CustSatSurvey)

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Chalmers & Kubeck, Inc.  
Quality System Manual

Procedure No.

**PM-4.14**

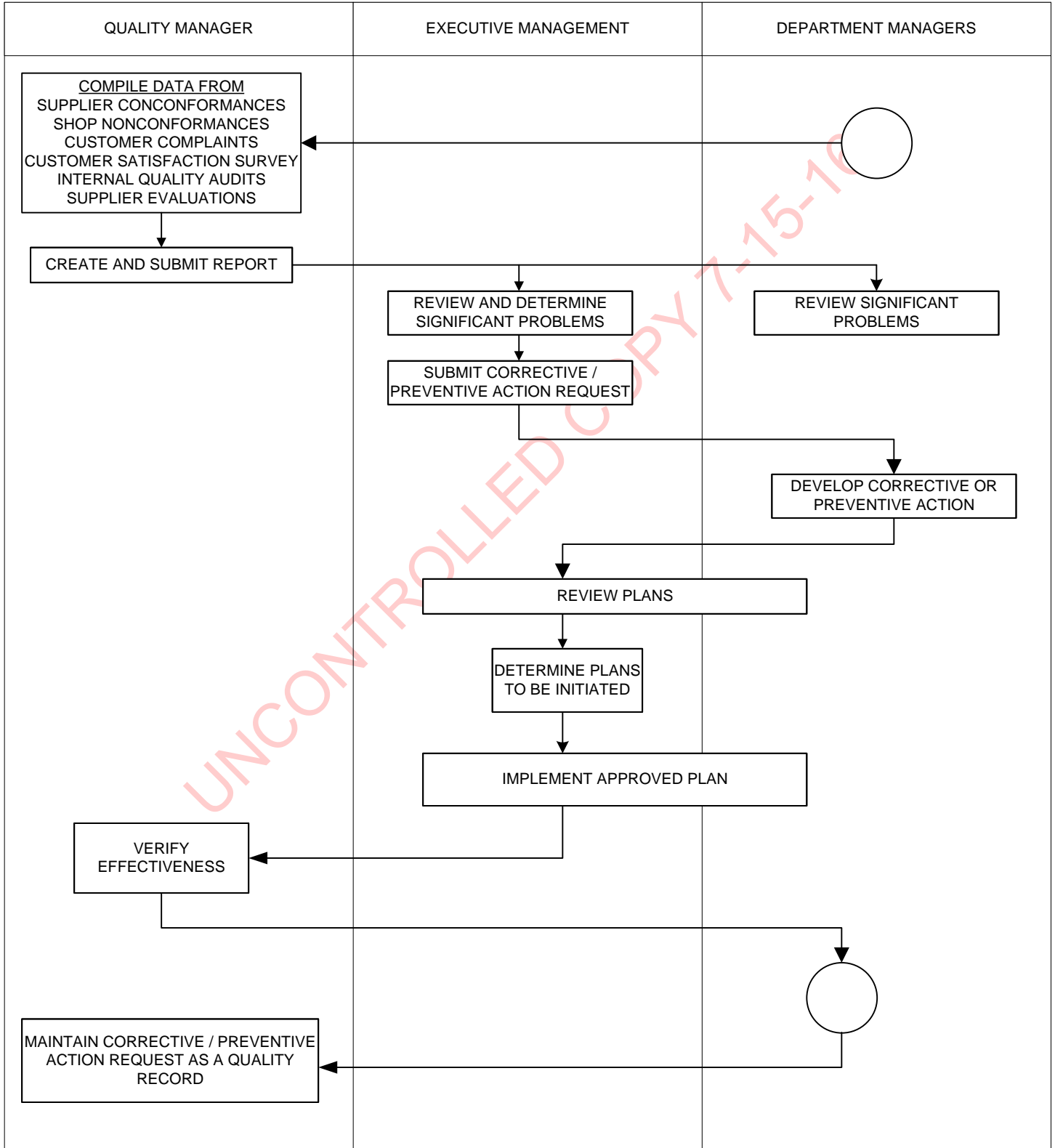
SUBJECT:

**CORRECTIVE AND PREVENTIVE ACTION**

Page:  
1 of 1

Reason for Revision: General revision and update.

Rev.2  
02-07-14



**CHALMERS & KUBECK, INC**

**CORRECTIVE / PREVENTIVE ACTION REQUEST**

**Department:** \_\_\_\_\_

**Reference Documents:** \_\_\_\_\_

**Statement of Requirement:**

**Deficiency:**

**Originated By:** \_\_\_\_\_  
**Date**

**Reply Due Date:** \_\_\_\_\_

**Cause of Nonconformance:**

**Corrective Action Taken:**

**Preventive Action Taken:**

**Department Manager:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Verification of Implementation and Effectiveness of Corrective & Preventive Actions Taken:**

**Reviewed By:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Executive Management Review:** \_\_\_\_\_

**Date:** \_\_\_\_\_

<b>Chalmers &amp; Kubeck, Inc.</b>	<b>Customer Complaint Report</b>	Job #: _____
Department: _____		Internal Use: <input type="checkbox"/> _____

Customer Name: _____	PO #: _____
Customer Contact: _____	Quantity: _____
Job Description: _____	
Part / Drawing #: _____	Rev.: _____

Description of Complaint: _____ _____ _____ _____ _____	
Reported By: _____	Date: _____

Cause of Complaint: _____	
Delivery: <input type="checkbox"/>	_____
Quality: <input type="checkbox"/>	_____
Invoice Error: <input type="checkbox"/>	_____
Other: <input type="checkbox"/>	_____
Initial Corrective Actions Taken: _____ _____ _____	
Reported by: _____	Date: _____
Reviewed by: _____	Date: _____

Disposition: Return for Repair / Rework: <input type="checkbox"/>		Use As Is / No Action Req'd: <input type="checkbox"/>
Replace by C&K: <input type="checkbox"/>		Other: (explain in comments) <input type="checkbox"/>
Scrap by Customer: <input type="checkbox"/>		
Comments: _____ _____		
Disposition Approved By: _____		Date: _____

Cost to Repair / Replace:	Labor: _____
	Material: _____
	Outside Services: _____
	Total Cost: _____
Reported by: _____	Date: _____

# Chalmers & Kubeck, Inc.

Setting the Industry Standard Since 1950

Phone: (610) 494-4300 Fax: (610) 485-1484

Machining & Manufacturing - Valves & Valve Repair - Weld & Weld Repair

Pumps & Pump Repair - Gears & Gear Box Repair - Field Services

Metallizing

## Customer Satisfaction Survey

This information is requested as part of our commitment to improve Quality. Please return by e-mail or fax.

Company Name: \_\_\_\_\_

Date: \_\_\_\_\_

Completed By: \_\_\_\_\_

Please score the Departments within Chalmers & Kubeck that you contract with (score all that apply)

A - CNC	E - Machining & Maintenance	I - Valve Field Service	M - Eng Pump Field Svc
B - Gears	F - Maintenance Field Service	J - Weld	
C - Gear Field Services	G - Sales	K - Weld Field Service	
D - Metal Spray	H - Valves	L - Eng Pump Shop	

1. Overall, how would you score the **Quality** of the products or services provided?

[5] Very Satisfied	A _____	H _____
[4] Satisfied	B _____	I _____
[3] Neither Satisfied or Dissatisfied	C _____	J _____
[2] Dissatisfied	D _____	K _____
[1] Extremely Dissatisfied	E _____	L _____
	F _____	M _____
	G _____	

2. Overall, how would you score the **Delivery** of the products or services provided?

[5] Very Satisfied	A _____	H _____
[4] Satisfied	B _____	I _____
[3] Neither Satisfied or Dissatisfied	C _____	J _____
[2] Dissatisfied	D _____	K _____
[1] Very Dissatisfied	E _____	L _____
	F _____	M _____
	G _____	

3. Overall, how would you score the **Customer Service** you received?

[5] Very Satisfied	A _____	H _____
[4] Satisfied	B _____	I _____
[3] Neither Satisfied or Dissatisfied	C _____	J _____
[2] Dissatisfied	D _____	K _____
[1] Very Dissatisfied	E _____	L _____
	F _____	M _____
	G _____	

4. How satisfied are you with the **Overall Performance** of the departments you deal with?

[5] Very Satisfied	A _____	H _____
[4] Satisfied	B _____	I _____
[3] Neither Satisfied or Dissatisfied	C _____	J _____
[2] Dissatisfied	D _____	K _____
[1] Very Dissatisfied	E _____	L _____
	F _____	M _____
	G _____	

Please attach any Comments / Suggestions on a separate page.

<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>	Process No. <b>CK-4.15</b>
SUBJECT: <b>PRESERVATION OF PRODUCT</b>	Page 1 of 1
Reason for Revision: General review and update.	Rev.2 02-07-14

## 1.0 Purpose

To ensure the conformity of product is preserved during internal processing and delivery to the intended destination in order to maintain conformity to requirements. As applicable, preservation shall include identification, handling, packaging, storage and protection. Preservation shall also apply to the constituent parts of a product.

## 2.0 Scope

This procedure applies to materials, parts and components where improper handling, storage, packaging, storage, protection and delivery may affect the specified quality requirements, including customer supplied products.

## 3.0 Responsibility

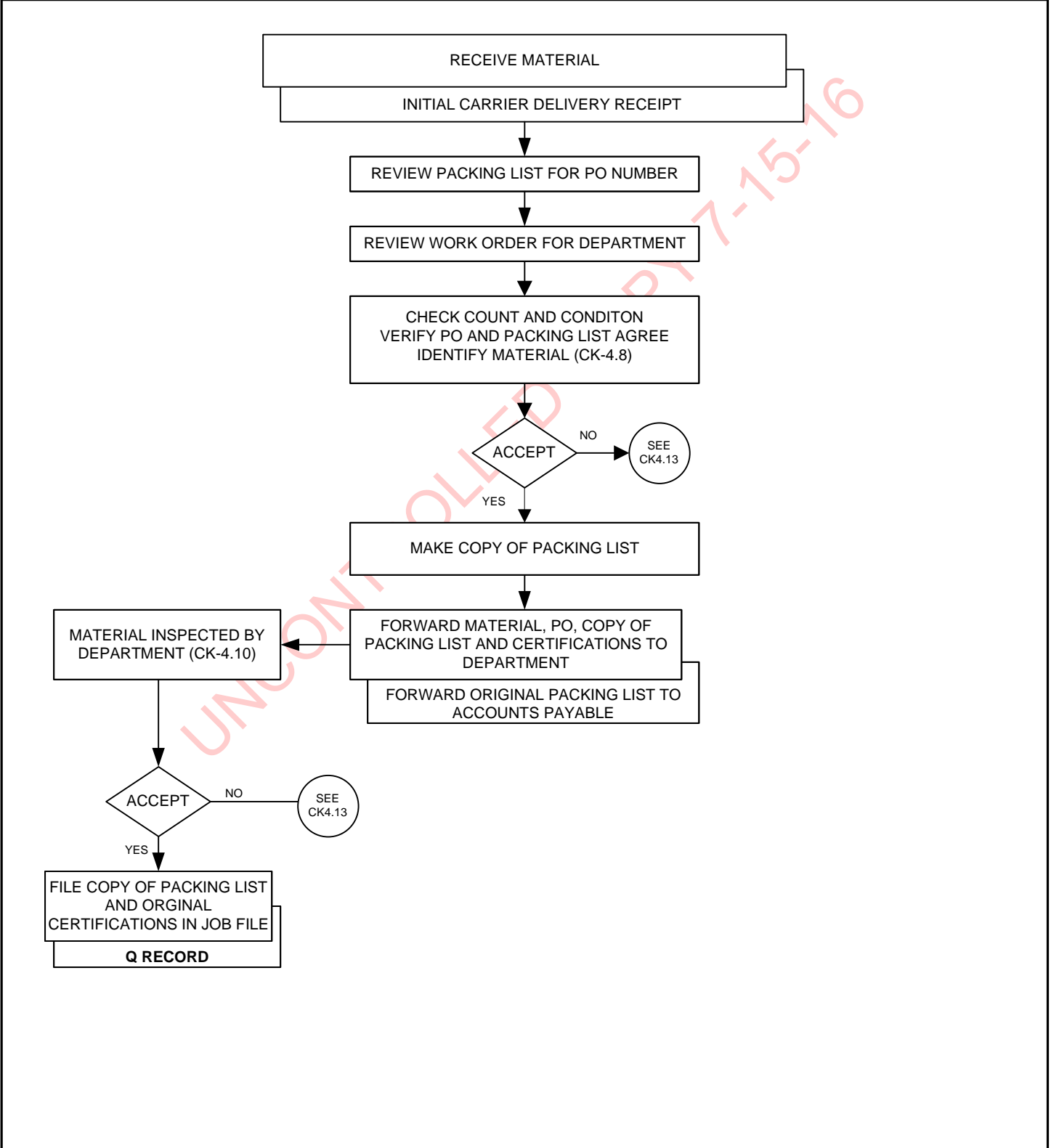
- 3.1** Shipping and Receiving is responsible for receiving material, checking count and condition, verifying agreement of Purchase Order and Packing List, identifying material and delivering material to the appropriate department per the Handling Process Map (PM-4.15a). Shipping and Receiving is also responsible for verifying the Shipping Release Tag after reviewing specific Shipping/Packaging instructions, and then packaging and delivery of products per the Delivery Process Map (PM-4.15b).
- 3.2** Department Managers, Foremen and Estimators are responsible for maintaining identification, proper handling, storage and protection of material and parts delivered to their area.
- 3.2.1** Preservation and storage of parts and raw material is based on preventing damage or deterioration of product while in the respective department area.
- 3.3** All employees are responsible for maintaining identification and properly handling parts and raw material as they progress throughout their respective departments.

## 4.0 References

Clause 7.5.5 of ISO 9001:2008 Preservation of Product  
Handling Process Map (PM-4.15a)  
Delivery Process Map (PM-4.15b)

<b>Chalmers &amp; Kubeck, Inc.</b> Quality System Manual	Procedure No. <b>PM-4.15a</b>
SUBJECT: <b>HANDLING</b> <b>PRESERVATION OF PRODUCT</b>	Page: 1 of 1
Reason for Revision: General review and update.	Rev.1 02-07-14

**MAIN PLANT SHIPPING & RECEIVING**



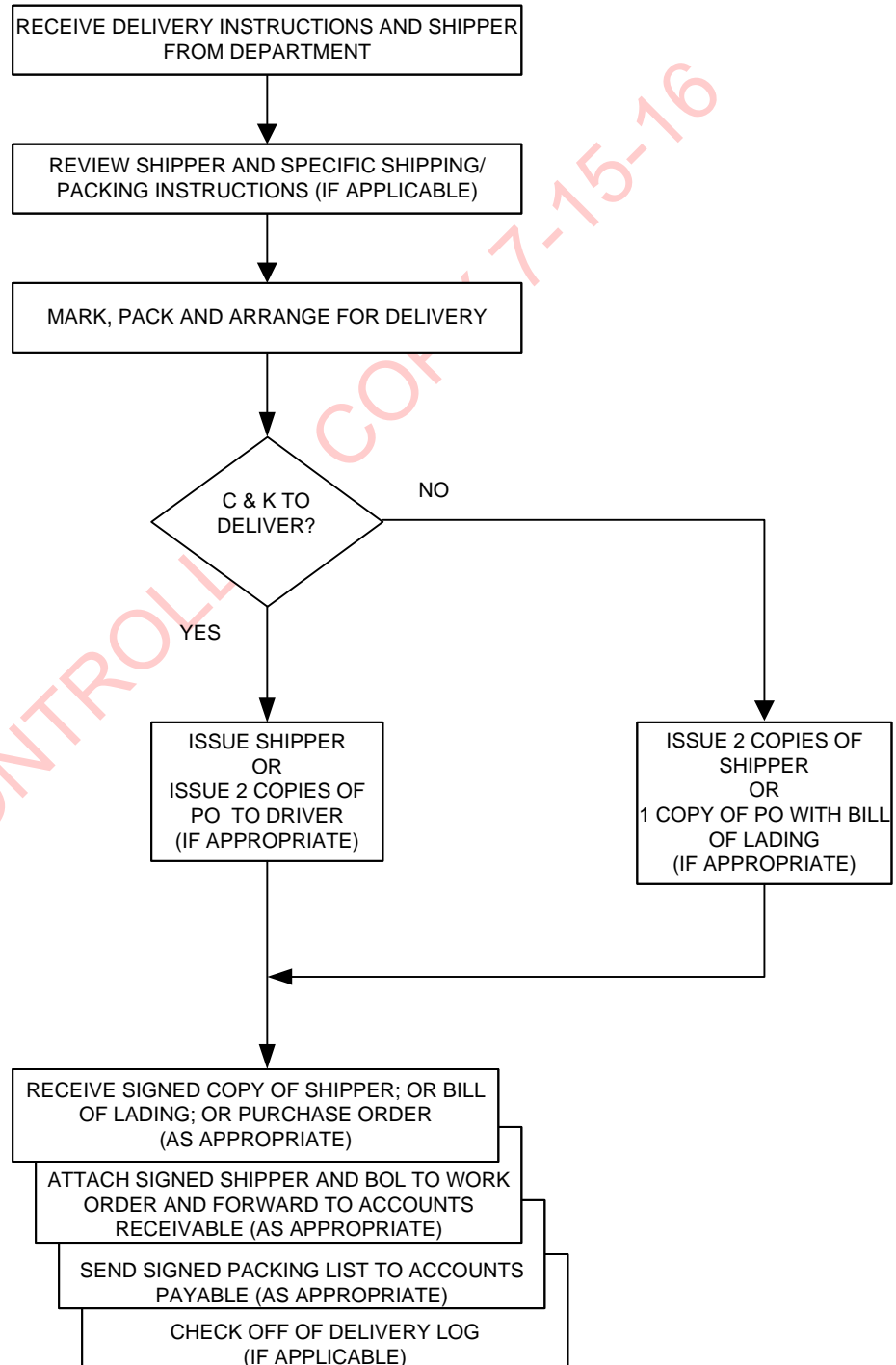
SUBJECT: **DELIVERY**  
**PRESERVATION OF PRODUCT**

Page:  
1 of 1

Reason for Revision: General review and update.

Rev.1  
02-07-14

### MAIN PLANT SHIPPING AND RECEIVING





<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>		Process No. <b>CK-4.16</b>
SUBJECT: <b>CONTROL OF QUALITY RECORDS</b>		Page 1 of 3
Reason for Revision: General review and update.		Rev.3 02-07-14

## 1.0 Purpose

- 1.1 To ensure identification, collection, indexing, access, filing, storage, maintenance and disposition of Quality Records.
- 1.2 Quality records shall be maintained to demonstrate conformance to specified requirements and the effective operation of the Quality Management System. Pertinent quality records from the subcontractor shall be an element of these data.
- 1.3 All quality records shall be legible and shall be stored and retained in such a way that they are readily retrievable in facilities that provide a suitable environment to prevent damage or deterioration and to prevent loss.
- 1.4 Where agreed on contractually, quality records shall be made available for evaluation by the customer or the customer's representative for an agreed period.
- 1.5 Quality records which have met the minimum retention time or customer required retention time, may be disposed of using appropriate methods.

## 2.0 Scope

This procedure applies to all quality records identified throughout the Quality System Manual.

## 3.0 Quality Records Matrix

	<b>Quality Record</b>	<b>Responsibility</b>	<b>Location</b>	<b>Retention</b>
4.1	Management Review Checklist	Quality Manager	Mgmt Review File	3 years
4.3	Blanket - Quote Confirmation Orders - Work Order or Purchase Order	General Manager Department Manager	Accounts Receivable Job File	3 years 3 years
4.4	Design & Development Record Design & Development Change Record	Engineering	Design & Develop File Job File Drawing File	7 years 3 years 7 years
4.6	Approved Subcontractor List Purchase Orders Supplier Evaluation Reports	Quality Manager Department Manager Quality Manager	Electronic File Job Files QA Files	Until Superseded 3 years 3 years
4.7	Supplier Nonconformance Report	Quality Manager Department Manager	Supplier NC File Job File	3 years 3 years
4.8	Material Certificates	Department Manager	Job File	3 years

<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>		Process No. <b>CK-4.16</b>
SUBJECT: <b>CONTROL OF QUALITY RECORDS</b>		Page 2 of 3
Reason for Revision: General review and update.		Rev.3 02-07-14

### 3.0 Quality Records Matrix (continued)

4.9	Weld & NDT Qualification Records Special Coatings Qualification Records	Weld Inspector Department Manager	Weld Department File Depart Employee File	3 Years 3 Years
4.10	Dimensional Records Shipping Release Tag	Department Manager	Job File	3 years
4.11	Calibration Log, Calibration Records and / or Certifications	Quality Manager	File	Until Superseded
4.13	Shop- Nonconformance Reports Supplier Nonconformance Reports	Quality Manager	Shop NC File Supplier NC File	3 years 3 years
4.14	Corrective Action Requests Customer Complaint Reports Customer Satisfaction Surveys	Quality Manager	Corrective Action File	3 years
4.17	Internal Audits Reports Audit Deficiency Reports	Management Representative	Audit File	Until Mgmt Review then Attached to Mgmt Review Checklist
4.18	Training Records / Qualification Records	Department Manager	Depart Employee File	Until Termination

### 4.0 Traceability

- 4.1** Where traceability is a requirement, the unique identification of the product shall be controlled and records shall be maintained.
- 4.2** All entries / records to be completed in permanent ink.
- 4.3** Corrections to official records shall be made by drawing a single line through the incorrect entry. Corrections to official records should be made by the person who made the original entry, the department foremen or the department manager and must be initialed and dated in permanent ink. The original entry must remain legible.
- 4.4** When additional information is added it shall be initialed and dated.
- 4.5** When a document is retyped, in portion or completely, to correct or add information, it shall be identified (e.g. \*). The document shall be resigned and dated.

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>		Process No. <b>CK-4.16</b>
SUBJECT: <b>CONTROL OF QUALITY RECORDS</b>		Page 3 of 3
Reason for Revision: General review and update.		Rev.3 02-07-14

**4.6** For General Dynamics-Electric Boat Contracts – all test and inspection records and reports of nonconformances applicable to the material supplied shall be retained. Test and inspection records shall be retained for a period of seven (7) years after completion of the last item of the contract or for a period of seven (7) years from the date the work was performed.

**4.6.1** At the end of the seven (7) year period, a request shall be made in writing requesting instruction from the Purchaser as to whether the records shall be destroyed; forwarded to the Purchaser; or retained for a longer period (as agreed upon).

## **5.0 References**

Clause 4.2.4 of ISO 9001:2008 Control of Records

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<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>		Process No. <b>CK-4.17</b>
SUBJECT: <b>INTERNAL QUALITY AUDITS</b>		Page: 1 of 1
Reason for Revision: General review and update.		Rev.2 02-07-14

## **1.0 Purpose**

To ensure internal quality audits are planned and performed to verify:

- whether quality activities and related results conform to ISO 9001:2008 requirements;
- whether quality activities and related results conform to the Quality Management System requirements;
- whether the Quality Management System is effectively implemented and maintained.

## **2.0 Scope**

This procedure applies to internal audits of the Quality Management System and related procedures, process maps and work instructions.

## **3.0 Responsibility**

**3.1** The Management Representative is responsible for:

- developing the Internal Quality Audit Schedule (IQAS);
- conducting the internal quality audits (at least twice per calendar year);
- completing an Internal Audit Report (IAR) and maintaining per CK-4.16, Control of Quality Records;
- reporting findings to Executive Management;
- issuing Audit Deficiency Reports (ADR) to the responsible department;
- verifying and recording the implementation and effectiveness of the correction and corrective actions taken;
- issuing Internal Audit Reports for input during Management Reviews;
- issuing Internal Audit Deficiency Reports for corrective and preventive action analysis.

**3.2** Department Managers are responsible for ensuring timely corrections and corrective actions to eliminate detected nonconformities and their causes.

**3.3** Internal Quality Audits are carried out by personnel independent of the activity being audited.

## **4.0 References**

Clause 8.2.2 of ISO 9001:2008 Internal Audit  
Internal Quality Audit Process Map (PM-4.17)  
Internal Quality Audit Schedule (IQAS)  
Internal Audit Report (IAR)  
Audit Deficiency Report (ADR)

Chalmers & Kubeck, Inc.  
Quality System Manual

Procedure No.

**PM-4.17**

SUBJECT:

**INTERNAL QUALITY AUDITS**

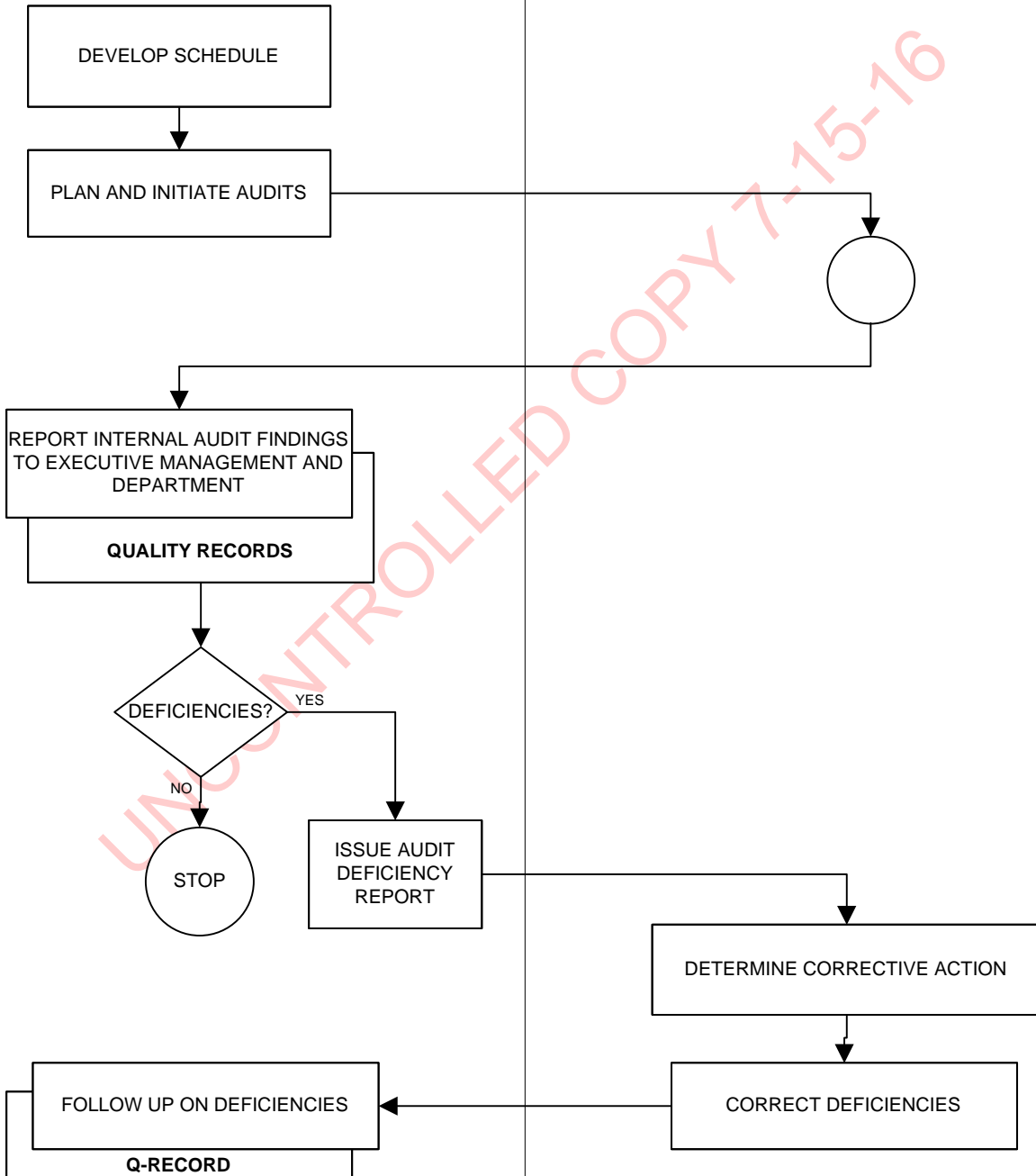
Page:  
1 of 1

Reason for Revision: General review and update.

Rev.2  
02-07-14

MANAGEMENT REPRESENTATIVE

CNC / MACHINING / GEAR / WELD / THERMAL SPRAY / ENG. PUMPS



# Chalmers & Kubeck, Inc.

## Internal Quality Audit Schedule

Quality System Manual Section		First Half	Second Half	
Management Responsibility	4.1	◇	◇	
Quality Management System	4.2	◇	◇	
Contract Review	4.3	◇	◇	
Design and Development	4.4	◇	◇	
Document Control	4.5	◇	◇	
Purchasing	4.6		◇	
Customer Property	4.7	◇		
Identification & Traceability	4.8	◇		
Control & Validation	4.9	◇	◇	
Monitoring & Measurement	4.10	◇	◇	
Control of Monitoring & Measuring Devices	4.11	◇		
Monitoring & Measurement Status of Product	4.12		◇	
Control of Nonconforming Material	4.13	◇	◇	
Corrective & Preventive Action	4.14	◇	◇	
Preservation of Product	4.15	◇		
Control of Quality Records	4.16		◇	
Internal Quality Audits	4.17	◇	◇	
Competence, Awareness & Training	4.18	◇	◇	
		↓	↓	
		<b>Management Review</b>	<b>Management Review</b>	

*Chalmers & Kubeck, Inc.*

**Internal Audit Report**

Department: \_\_\_\_\_

Date of Audit: \_\_\_\_\_

Procedures: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Contacts: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- INITIAL AUDIT REPORT
- AUDIT DEFICIENCY REPORT ATTACHED
- OTHER ATTACHMENTS ATTACHED
- FOLLOW UP AUDIT
- FOLLOW UP REQUIRED

PURPOSE OF AUDIT:

\_\_\_\_\_

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# CHALMERS & KUBECK, INC

## AUDIT DEFICIENCY REPORT

Department: \_\_\_\_\_

Contacts: \_\_\_\_\_

Reference Documents: \_\_\_\_\_

**Statement of Requirement:**

**Deficiency:**

**Recommended Corrective Action:**

**Auditor:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Reply Due Date:** \_\_\_\_\_  
(Reply to Management Representative)

**Corrective Action Taken:**

**Corrective Action to Prevent Recurrence:**

**Department Manager:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**Quality Improvement Verification:**

**Management Representative:** \_\_\_\_\_

**Date:** \_\_\_\_\_



<b>Chalmers &amp; Kubeck, Inc.</b> <b>Quality System Manual</b>		Process No. <b>CK-4.18</b>
SUBJECT: <b>COMPETENCE, TRAINING and AWARENESS</b>		Page: 1 of 1
Reason for Revision: General review and update.		Rev.2 02-07-14

## 1.0 Purpose

To ensure personnel performing work affecting conformity to product requirements are competent on the basis of appropriate education, training, skills and experience.

## 2.0 Scope

This procedure applies to all employees performing activities which may affect quality.

## 3.0 Responsibility

### 3.1 Department Managers and Foremen are responsible for:

- determining the necessary competence for personnel performing work affecting conformity to product requirements through Position Descriptions (PD-);
- ensuring that personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of the quality objectives;
- where applicable, identifying and providing training or other actions to achieve necessary competence;
- evaluating the effectiveness of the actions taken
- maintaining appropriate records of education, training, skills and experience as a Quality Record using the Employee Training and Qualification Record (ETQR-) and the Employee Training Record (ETR-1) per CK-4.16 - Control of Quality Records.

### 3.2 Employees are responsible for:

- identifying training needs
- reviewing training plans
- attending training

## 4.0 References

Clause 6.2.2 of ISO 9001:2008 Competence, Training and Awareness  
 Training Process Map (PM-4.18)  
 Employee Training and Qualification Record (ETQR-1)  
 Employee Training and Qualification Record Weld (ETQR-2)  
 Employee Training and Qualification Record QA (ETQR-3)  
 Employee Training Record (ETR-1)  
 Personnel Files  
 Position Descriptions (Section 6)

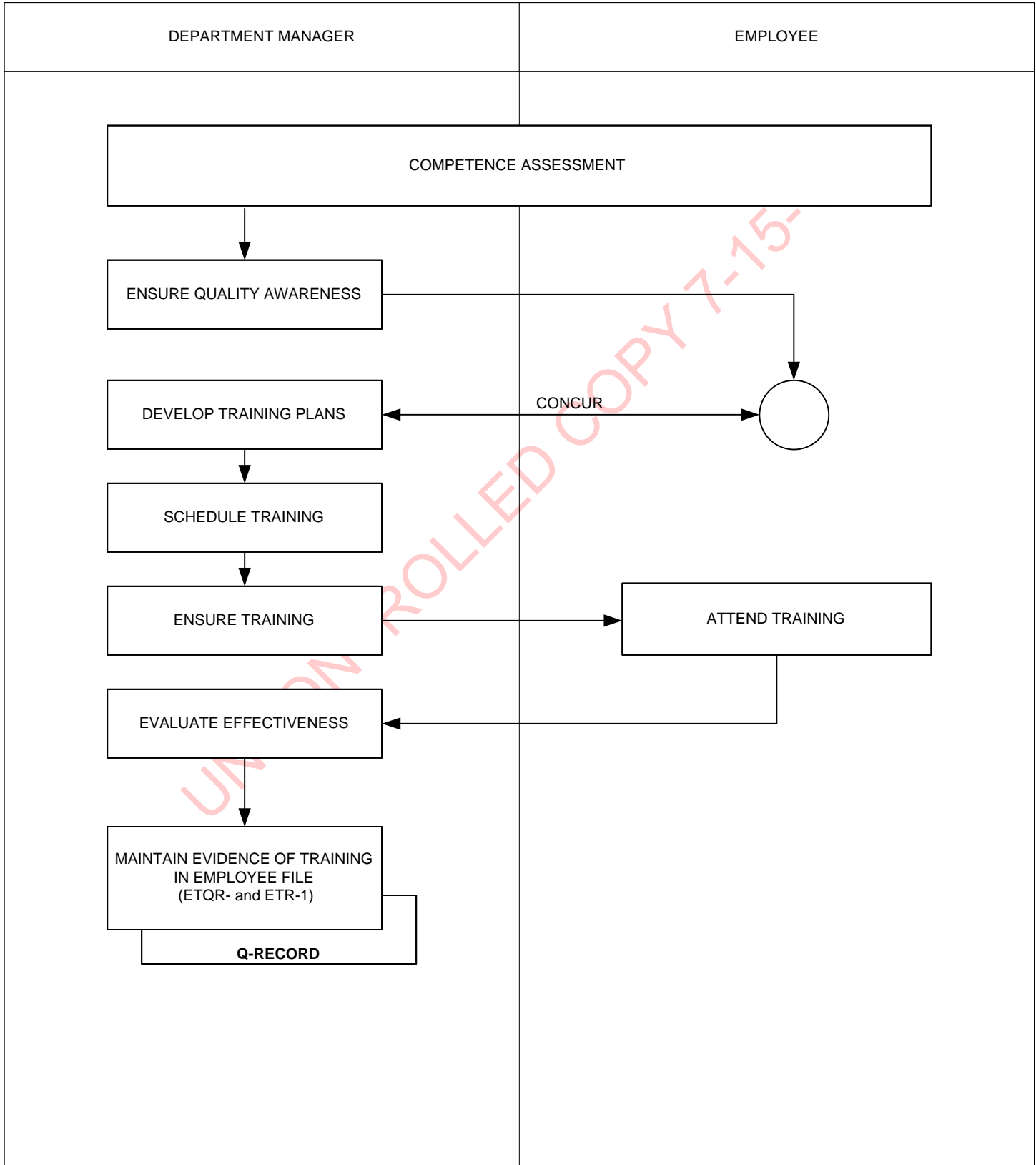
SUBJECT:

**COMPETENCE, TRAINING and AWARENESS**

Page:  
1 of 1

Reason for Revision: General review and update.

Rev.2  
02-07-14



Chalmers & Kubeck Inc.  
Employee Training / Qualification Record

Employee Name: \_\_\_\_\_

**The above employee has demonstrated the necessary skills and/or has received training to be considered competent in the following areas:**

**General:**

- |  |             |                          |
|--|-------------|--------------------------|
| <input type="checkbox"/> ISO 9001 Training         | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> First Aid Training (card) | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Rigging                   | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Inspection Equipment      | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Coatings Process          | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Fork Lift (card)          | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Blue Print Reading        | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> CPR / Defibulator         | Date: _____ | Manager / Foremen: _____ |

**Equipment / Knowledge:**

- |  |             |                          |
|--|-------------|--------------------------|
| <input type="checkbox"/> Assembly/Disassembly  | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Gear Checker          | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Gear Grinder          | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Hobber                | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Gear Shaper           | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Pattern Checker       | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Key Seater            | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Saws                  | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Drill Press           | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Manual Lathe          | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Manual HBM            | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Manual VBM            | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> OD / ID Grinding      | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> CNC Lathe             | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> CNC HBM               | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> CNC VBM               | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Schneck Balancer      | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Shaft Straightener    | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Laser Shaft Alignment | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> CSI Vibration Equip   | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Boroscope             | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> SKF Vibration Pen     | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Auto Cad 2000         | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Hardness Tester       | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Romer Arm             | Date: _____ | Manager / Foremen: _____ |
| <input type="checkbox"/> Material Analyzer     | Date: _____ | Manager / Foremen: _____ |

# Employee Training / Qualification Record

## Weld Department

**Employee:** \_\_\_\_\_

The above employee has demonstrated the necessary skills and/or has received training to be considered competent in the following areas:

### General:

- |  |             |                        |
|--|-------------|------------------------|
| <input type="checkbox"/> ISO 9001 Training             | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> First Aid Training (card)     | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Rigging                       | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Standard Inspection Equipment | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Coatings – Special Process    | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Fork Lift (card)              | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Blueprint Reading             | Date: _____ | Manager/Foreman: _____ |

### Equipment / Knowledge:

- |   |             |                        |
|---|-------------|------------------------|
| <input type="checkbox"/> Assembly/Disassembly | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Tac Welding          | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> SMAW (stick)         | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> GTAW (tig)           | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> GMAW (mig)           | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> FCAW (flux core)     | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> SAW (submerged arc)  | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Burn Table           | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Plasma Arc Cutting   | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Air Arc Gouging      | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Air Arc Cutting      | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Back Grinding        | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Fabrication          | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Shear                | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Brake                | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Plate Rolls          | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Angle Rolls          | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Band Saw             | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Friction Saw         | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Roto-Blast Machine   | Date: _____ | Manager/Foreman: _____ |

# Employee Training / Qualification Record

## Quality Department

**Employee:** \_\_\_\_\_

The above employee has demonstrated the necessary skills and/or has received training to be considered competent in the following areas:

### General:

- |  |             |                        |
|--|-------------|------------------------|
| <input type="checkbox"/> ISO 9001 Training             | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> First Aid Training (card)     | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Rigging                       | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Standard Inspection Equipment | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Coatings – Special Process    | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Fork Lift (card)              | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Blue Print Reading            | Date: _____ | Manager/Foreman: _____ |

### Equipment / Knowledge:

- |   |             |                        |
|---|-------------|------------------------|
| <input type="checkbox"/> Standard Measuring Equipment   | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Surface Roughness Measurement  | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Calibration WI-4.11a           | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Accuracy Verification WI-4.11b | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Basic Auditing                 | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Hardness Tester                | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Romer Arm                      | Date: _____ | Manager/Foreman: _____ |
| <input type="checkbox"/> Faro Ion Laser Tracker         | Date: _____ | Manager/Foreman: _____ |

*Chalmers & Kubeck, Inc.*  
**Employee Training Record**

**Employee:** \_\_\_\_\_ **Department:** \_\_\_\_\_

**Type of Training:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Trainer Evaluation of Effectiveness:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Trainee Feedback/Comments:**  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Trainer:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Department Manager:** \_\_\_\_\_ **Date** \_\_\_\_\_

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No. <b>CK-5.0</b>
SUBJECT: <b>DEFINITIONS</b>	Page: 1 of 2
Reason for Revision: Revise to ISO 9001:2008 requirements.	Rev.1 09-01-09

Corrective Action

Measures taken to rectify conditions adverse to quality and, where necessary, to preclude repetition.

Inspection

Examination to verify whether an item or activity conforms to specified requirements.

Internal Quality Audits

An audit or assessment of the Quality System performed to verify the effectiveness or implementation.

Nonconformances

A product, documentation or procedure that does not comply with specified requirements.

Process Maps

Activities within a process that are illustrated in the form of block diagrams to define the sequence of events, responsibility and interfacing departments that take place from beginning to end.

Procedures

Guidelines developed to assign accountability and responsibility for the line functions in support of the Quality Management System.

Quality Records

A completed document that furnishes evidence of the quality of an item or activity affecting quality.

Supplier

A supplier makes a product to a specification for Chalmers & Kubeck, either to a drawing, Sketch or to special instructions. This definition excludes "Off the Shelf" and/or "Cut to Length" items.

Quality System Manual

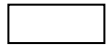
Manual outlining the organization, responsibilities, procedures, processes and resources for implementing a quality management system.

Off the Shelf

Materials, parts or components purchased to industry, commercial or military standards or specifications. Off the shelf shall include material, parts or components purchased to supplier part numbers.

<b><i>Chalmers &amp; Kubeck, Inc.</i></b> <b>Quality System Manual</b>	Process No. <b>CK-5.0</b>
SUBJECT: <b>DEFINITIONS</b>	Page: 2 of 2
Reason for Revision: Revise to ISO 9001:2008 requirements.	Rev.1 09-01-09

Process Map Symbols and Definitions



Activity



Start / Stop of process; interface



Decision



Flow Line

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# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: President**

**Where Assigned: Company Management**

### **Regular Duties:**

1. Review Department Production and Overhead.
2. Review Company Expenses.
3. Review Company Equipment Usage and Determine Equipment Requirements.
4. Review Revenues.
5. Direct the Company Quality Management System in accordance with ISO 9001 Requirements.
6. Attend Management Review Meetings.

### **Responsibilities:**

1. Maintain Customer Satisfaction.
2. Establish Company Goals and Objectives.

### **Qualifications:**

1. Company Owner.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: General Manager**

**Where Assigned: President**

### Regular Duties:

1. Manage All Aspects of the Main Office.
2. Manage Office Personnel.
  - Maintain Personnel Files on All Main Office Personnel.
  - Conduct Employee Performance Reviews.
  - Determine Personnel Training Needs.
3. Track Orders Received by Department.
4. Manage Sales Activities.
5. Manage Company Billing except Valve Department.
6. Review Department Production and Overhead.
7. Negotiate Annual Customer Contracts.
8. Insure Conformance to the Quality System Manual in accordance with ISO 9001.
9. Report on Quality System for Management Review.
10. Purchase Materials, Tools & Supplies.
11. Coordinate Activities Among Departments.
12. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System.
4. Maintain Good Customer Relations.
5. Establish Company Goals and Objectives.

### Qualifications:


1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Director of Operations**

**Where Assigned: General Manager**

### Regular Duties:

1. Manage All Aspects of the Main Office.
2. Manage Office Personnel.
  - Maintain Personnel Files on All Main Office Personnel.
  - Conduct Employee Performance Reviews.
  - Determine Personnel Training Needs.
3. Track Orders Received by Department.
4. Prepare and Achieve Sales Forecast.
5. Manage Company Billing except Valve Department.
6. Review Department Production and Overhead.
7. Insure Conformance to the Quality System Manual in accordance with ISO 9001.
8. Purchase Materials, Tools & Supplies.
9. Coordinate Activities Among Departments.
10. Maintain Company Vehicles.
11. Maintain Building & Grounds.
12. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System.
4. Maintain Good Customer Relations.
5. Establish Company Goals and Objectives.

### Qualifications:

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Receptionist**

**Where Assigned: Director of Operations**

### **Regular Duties:**

1. Operate the Corporate Phone Console.
2. Receive Visitors.
3. Process Quotations.
  - Enter Quotations and Verify.
  - Print and Mail Quotations.
4. File Quotations and Purchase Orders.
5. Type Correspondence.
6. Produce Bar Coded Job Cards and Labels.
7. Distribute Faxed Documents.
8. Order Copier and Postage Meter Supplies.
9. Conform to the Quality System Manual in accordance with ISO 9001.
10. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(2-7-14)

Approved By: 

**Position Title: Electrician**

**Where Assigned: Director of Operations**

### **Regular Duties:**

1. Maintain Power Supplies to Plants.
2. Maintain Power to Plant Machinery.
3. Install Power for New Machinery.
4. Maintain Electrical Operation of Machinery.
5. Purchase Electrical Components and Related Equipment.
6. Conform to the Quality System Manual in accordance with ISO 9001.
7. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

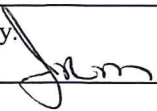


# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Department Manager**

**Where Assigned: CNC, Machining & Maintenance, Gear, Weld, Engineered Pumps & Thermal Spray Departments**

### **Regular Duties:**

1. Manage all Aspects of Department Operations.
  - Production, Overhead & Expenses
2. Manage Department Personnel.
  - Maintain Personnel Files on All Department Personnel
  - Conduct Employee Performance Reviews
  - Determine Personnel Training Needs
3. Provide Customer Service.
4. Prepare and Sign Quotations.
5. Conduct Purchase Order Reviews.
6. Communicate with Salesman on Jobs for Their Customers.
7. Purchase Materials, Tools and Supplies.
8. Select Work to be Subcontracted.
9. Schedule Personnel and Jobs.
10. Inspect Jobs for Quality.
  - Identify & Verify Critical Criteria
11. Prepare Department Billing.
12. Manage the Department Preventive Maintenance Program.
13. Insure Conformance to the Quality System Manual in accordance with ISO 9001.
14. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.
5. Establish Department Goals and Objectives.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Department Working Foreman**

**Where Assigned: CNC, Machining & Maintenance, Gear, Weld, Pump & Thermal Spray Departments**

### Regular Duties:

1. Perform Assigned Departmental Operational Tasks
2. Supervise Department Personnel.
  - Assist with Personnel File Maintenance
  - Assist with Employee Reviews
  - Schedule Personnel Training Needs
3. Provide Customer Service.
4. Prepare Quotations.
5. Conduct Purchase Order Reviews.
6. Communicate with Salesman on Jobs for Their Customers.
7. Purchase Materials, Tools and Supplies.
8. Subcontract Work.
9. Schedule Personnel and Jobs.
10. Inspect Jobs for Quality.
  - Identify & Verify Critical Criteria
11. Assist with Department Billing.
12. Maintain Department Preventive Maintenance Records.
13. Insure Conformance to the Quality System Manual in accordance with ISO 9001.
14. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### Qualifications:

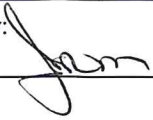
1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Estimator / Program Manager**

**Where Assigned: Department Manager**

### Regular Duties:

1. Perform Assigned Departmental Operational Tasks.
2. Provide Customer Service.
3. Prepare Quotations; Sign Quotations only when Requested.
4. Conduct Purchase Order Reviews.
5. Communicate with Salesman on Jobs for Their Customers.
6. Purchase Materials, Tools and Supplies.
7. Subcontract Work.
8. Inspect Jobs for Quality.
  - Identify and Verify Critical Criteria
9. Assist with Department Billing.
10. Conform to the Quality System Manual in accordance with ISO 9001.
11. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### Qualifications:

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.



# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Machinist**

**Where Assigned: CNC, Machining & Maintenance, Gear, Weld,  
Engineered Pumps & Thermal Spray Departments**

### Regular Duties:

1. Read Drawings.
2. Layout Jobs.
3. Setup Machines.
4. Operate Machines.
5. Use Inspection Instruments.
6. Disassemble & Assemble Equipment & Assemblies.
7. Inspect Jobs for Quality.
  - Record and Initial Measurements
  - Identify Measurement Tools by Department
  - Verify Accuracy of Inspection Equipment Prior to Use
8. Perform Material Handling.
9. Perform Suitable Equipment Maintenance.
10. Conform to the Quality System Manual in accordance with ISO 9001.
11. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### Qualifications:

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Mechanic**

**Where Assigned: CNC, Machining & Maintenance, Gear, Weld,  
Thermal Spray & Engineered Pump Departments**

### **Regular Duties:**

1. Read Drawings.
2. Layout Jobs.
3. Work with Hand Tools.
4. Use Inspection Instruments.
5. Disassemble & Assemble Equipment & Assemblies.
6. Inspect Jobs for Quality.
  - Record and Initial Measurements
  - Identify Measurement Tools by Department
  - Verify Accuracy of Inspection Equipment Prior to Use
7. Perform Material Handling.
8. Perform Suitable Equipment Maintenance.
9. Conform to the Quality System Manual in accordance with ISO 9001.
10. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Welder**

**Where Assigned: Weld Department**

### **Regular Duties:**

1. Read Drawings.
2. Layout Jobs.
3. Work with Hand Tools.
4. Use Inspection Instruments.
5. Weld Components and Assemblies.
6. Inspect Jobs for Quality.
  - Record and Initial Measurements
  - Identify Measurement Tools by Department
  - Verify Accuracy of Inspection Equipment Prior to Use
7. Perform Material Handling.
8. Perform Suitable Equipment Maintenance.
9. Conform to the Quality System Manual in accordance with ISO 9001.
10. Keep Welding Qualifications Current.
11. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### **Qualifications:**

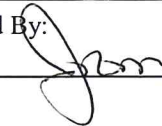
1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Shipping, Receiving and Trucking**

**Where Assigned: Director of Operations**

### **Regular Duties:**

1. Schedule Pickups and Deliveries.
2. Maintain Shipping Records.
3. Receive Incoming Jobs & Deliver to the Appropriate Department.
4. Receive Incoming Parts & Material and Compare Purchase Order to Packing List.
5. Deliver Parts & Material to Appropriate Department.
6. Perform Material Handling.
7. Drive Company Trucks.
8. Conform to the Quality System Manual in accordance with ISO 9001.
9. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Truck Driver**

**Where Assigned: Shipping & Receiving**

### **Regular Duties:**

1. Schedule Pickups and Deliveries.
2. Receive Incoming Jobs & Deliver to the Appropriate Department.
3. Deliver Parts & Material to Appropriate Department.
4. Perform Material Handling.
5. Drive Company Trucks.
6. Conform to the Quality System Manual in accordance with ISO 9001.
7. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.



# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Director of Account Managers**

**Where Assigned: General Manager**

### Regular Duties:

1. Manage all Aspects of Department Operations.
  - Production, Overhead & Expenses
2. Manage Department Personnel.
  - Maintain Personnel Files on All Department Personnel
  - Conduct Employee Performance Reviews
  - Determine Personnel Training Needs
3. Provide Customer Service.
4. Track Orders Received by Department.
5. Manage Sales Activities
6. Negotiate Annual Contracts.
7. Insure Conformance to the Quality System Manual in accordance with ISO 9001.
8. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.
5. Establish Department Goals and Objectives.

### Qualifications:

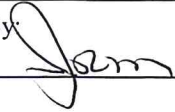
1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Quality Control Inspector**

**Where Assigned: Quality Manager**

### **Regular Duties:**

1. Read Drawings.
2. Perform Inspections.
3. Maintain Inspection Records.
4. Maintain Quality Notification Records (QN).
5. Maintain Inspection Equipment Calibration Records.
6. Inspect Job Packaging for Shipment.
7. Auditing in accordance with the Quality System Manual and ISO 9001.
8. Conformance to the Quality System Manual in accordance with ISO 9001.
9. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Weld Inspector**

**Where Assigned: Weld Department Manager**

### **Regular Duties:**

1. Read Drawings.
2. Perform Inspections.
3. Maintain Inspection Records.
4. Maintain Nonconformance Records (NCR).
5. Maintain Welding Machine Calibration Records.
6. Originate & Maintain Welding Procedures.
7. Qualify Welders on GTAW, SMAW, GMAW techniques and Maintain Employee Qualification Records.
8. Maintain NDT Procedures and Employee Certification Records.
9. Inspect Job Packaging for Shipment.
10. Conformance to the Quality System Manual in accordance with ISO 9001.
11. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.




# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By:



**Position Title: Chief Financial Officer**

**Where Assigned: President**

### **Regular Duties:**

1. Corporate Officer – Secretary.
2. Supervise Accounts Payable, Accounts Receivable and Payroll.
3. Prepare Monthly and Annual Financial Reports.
4. Prepare Local, State and Federal Tax Returns.
5. Prepare Management Payroll.
6. Verify Internal Accounting Controls.
7. Perform Banking, Cash Flow and Investing.
8. Coordinate Legal Issues with Outside Council.
9. Administer Pension and 401K Retirement Plans.
10. Administer Company Insurance Policies.
11. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System.
4. Achieve Department Goals and Objectives.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Human Resources**

**Where Assigned: CFO**

### **Regular Duties:**

1. Setup and Maintain Employee Personnel Files.
2. Enroll Employees in Various Insurance Plans.
  - Resolve Insurance Problems
3. Schedule Employee Physical Exams & Drug Testing.
4. Schedule Doctor Appointments for Work Related Injuries, Workman's Compensation.
5. Process Court Ordered Payroll Deductions.
6. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System.
4. Achieve Department Goals and Objectives.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Account Manager**

**Where Assigned: Director of Account Managers**

### **Regular Duties:**

1. Prepare and Achieve Sales Forecasts.
2. Communicate with Shop Department Managers and Foremen on Jobs for Your Customers.
3. Maintain Excellent Customer Relations.
4. Provide Customer Service.
5. Secure New Customers.
6. Conform to the Quality System Manual in accordance with ISO 9001.
7. Other Duties as Assigned.
8. Inform General Manager, Quality Manager and Department Managers of Customer Complaints.

### **Responsibilities:**

1. Perform Work in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System.
4. Achieve Department Goals & Objectives.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

**Position Title: Quality Manager**

**Where Assigned: President**

Revision Date:  
(02-07-14)

Approved By: 

### Regular Duties:

1. Manage all Aspects of Department Operations.
  - Inspection and Testing Activities
2. Assist in the maintenance of the Company Quality System in accordance with the Quality System Manual and ISO 9001.
  - Insuring the Quality System is Established, Implemented and Maintained
  - Assist in Logging, Trending, Analyzing and Maintaining Quality Information (Quality Information Services).
3. Assist in Maintaining and Updating the Quality System Manual.
4. Insure Conformance to the Quality System Manual in accordance with ISO 9001.
5. Assist in Reporting on the Performance of the Quality System to Executive Management.
6. Assist in Auditing the Quality System in accordance with the Quality System Manual and ISO 9001.
7. Assist in Providing Training to New Employees in the Quality System Manual and ISO 9001.
  - Retrain Employees as necessary
8. Purchase Inspection, Measuring and Test Equipment When Requested.
9. Maintain Calibration and Accuracy Verification Systems for Inspection, Measuring and Test Equipment.
10. Manage Department Personnel.
  - Maintain Personnel Files on Department Personnel
  - Conduct Employee Performance Reviews
  - Determine Personnel Training Needs
11. Provide Customer Service.
12. Inspect Jobs for Quality
  - Identify and Verify Critical Criteria
13. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Maintain Good Customer Relations.
4. Use the Bar Coded Time Recording System for all Jobs and Activities.
5. Establish Department Goals and Objectives.


### Qualifications:

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers and Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Draftsman**

**Where Assigned: CNC, Engineered Pumps, Gear, Machining & Maintenance,  
Thermal Spray & Weld Departments.**

### **Regular Duties:**

1. Draw and Revise Chalmers & Kubeck Drawings.
2. Reverse Engineer Customer Supplied Material.
3. Maintain Drawing Log.
4. Maintain File of Approved Drawings.
5. Perform Inspections.
6. Provide Technical Assistance To Department.
7. Conform to the Quality System Manual in accordance with ISO 9001.
8. Other Duties as Assigned.

### **Responsibilities:**

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System.
4. Maintain Good Customer Relations.

### **Qualifications:**

1. Demonstrated Abilities to Perform Duties Listed above at Chalmers & Kubeck.



# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: CNC Programmer**

**Where Assigned: CNC Department Manager**

### Regular Duties:

1. Perform Assigned Departmental Operational Tasks
2. Program CNC Machinery
3. Supervise Department Personnel.
  - Assist with Personnel File Maintenance
  - Schedule Personnel Training Needs
4. Provide Customer Service.
5. Prepare Quotations.
6. Conduct Purchase Order Reviews.
7. Communicate with Salesman on Jobs for Their Customers.
8. Purchase Materials, Tools and Supplies.
9. Subcontract Work.
10. Schedule Personnel and Jobs.
11. Inspect Jobs for Quality.
  - Identify & Verify Critical Criteria
12. Assist with Department Billing.
  - Assist with Employee Reviews
13. Maintain Department Preventive Maintenance Records.
14. Insure Conformance to the Quality System Manual in accordance with ISO 9001.
15. Other Duties as Assigned.

### Responsibilities:

1. Perform Work Assigned in a Professional and Timely Manner.
2. Perform High Quality Work.
3. Use the Bar Coded Time Recording System for all Jobs and Activities.
4. Maintain Good Customer Relations.

### Qualifications:

1. Demonstrated Abilities to Perform Duties Listed Above at Chalmers & Kubeck.

# Chalmers & Kubeck Inc.

## Position Description

Revision Date:  
(02-07-14)

Approved By: 

**Position Title: Purchasing**

**Where Assigned: Director of Operations**

### **Regular Duties:**

1. Perform assigned departmental tasks.
2. Research price and delivery on material, supplies and tools.
3. Research price and delivery from outside sources.
4. Purchase materials, supplies and tools.
5. Review Approved Supplier List.
6. Evaluate suppliers for quality and delivery.
7. Assist Shipping/Receiving to ensure material, tools and supplies are delivered to the appropriate departments.
8. Other duties as assigned.
9. Conform to the Quality System Manual in accordance with ISO 9001.

### **Responsibilities:**

1. Perform work assigned in a professional and timely manner.
2. Perform high quality work.
3. Use the bar coded time recording system for all Jobs and Activities.
4. Maintain good customer relations.
5. Maintain good supplier relations.

### **Qualifications:**

1. Demonstrated abilities to perform duties listed above at Chalmers & Kubeck.