

**QUALITY**

**ASSURANCE**

**MANUAL**

**CORRELATION CHART**

<b>ISO 9001:2000 &amp; AS9120 CLAUSE NUMBER</b>	<b>QA MANUAL PARAGRAPH NUMBER</b>	<b>TW METALS UK &amp; PHILIP CORNES PROCEDURE / INST NO</b>	<b>TW METALS POLSKA PROCEDURE / INST NO</b>	<b>TW METALS FRANCE PROCEDURE / INST NO</b>
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## 1.0 COMPANY HISTORY & SCOPE OF QUALITY MANAGEMENT SYSTEM

### a) Company History:

TW Metals a wholly owned subsidiary of Superior Group Inc, was formed in 1998, as a result of the merger of Tubesales, Inc. and Williams & Company.

Tubesales was originally founded in 1946 in Los Angeles.

In 1963 Tubesales (UK) was founded, with a warehouse and offices situated in Southampton docks.

In 1981 a new warehouse and office facility was opened which exists today and is located two miles from the junction of the M27/M271 motorway and is close to Southampton town centre.

The warehouse has an area of approximately 100,000 square feet and office area of 15,000 square feet.

TW Metals in Southampton has subsequently become the European Headquarters with the opening of the following locations.

In 1990, Tubesales, France opened in St Nazaire to service the French aerospace market and develop other commercial business

In 2000, TW France relocated to larger purpose built premises in Orleans.

In 1998, as mentioned in the opening paragraph Tubesales became TW Metals who also in the same year acquired the Philip Cornes Group with sales offices already established in Redditch (UK), Belgium and Singapore. In 1999, inventory and processing operations for Philip Cornes were re-located in Southampton ( on the TW Metals Ltd site )

In 2004, TW Metals Polska was opened in Rzeszow, Southern Poland, initially to support a contract for a Polish subsidiary of a prime aerospace company.

### b) Scope of Quality Management System

TW Metals & Philip Cornes business is stockholding, distribution and associated cutting of tube, pipe, bar, sheet, plate, pipe fittings, flanges and extrusions in a range of materials including, stainless, duplex steel, nickel alloy, copper alloy, aluminium, titanium and molybdenum.

The quality management system is applicable to all TW Metals and Philip Cornes European companies and is designed to meet the requirements detailed below for each of it's locations, excluding clauses 7.3 & 7.5.2 as the company's business does not include Production, Servicing or Design.

TW Metals Southampton ( Headquarters ) – ISO 9001:2000/AS9120

TW Metals Rzeszow, Poland - ISO 9001:2000/AS9120

TW Metals ST Ay, France - ISO 9001:2000/AS9120

Philip Cornes, Southampton & Redditch - ISO 9001:2000.

## 2.0 STATEMENT OF POLICY

It is the objective of TW Metals and Philip Cornes to supply products of consistent quality to its clients and to ensure compliance with the applicable codes, standards and regulatory requirements. Our technical expertise and advice are available to our customers at all times.

This Quality Manual describes the Quality Management System employed by the Company. Its contents have been reviewed and indicate the compliance of the system with the requirements of ISO 9001:2000/AS9120 and those imposed by the applicable regulatory authority. It is supported by Operating Procedures, which define in detail how each element of the system is applied. The quality management system does not cover the manufacture of goods supplied.

The system is designed to identify nonconformity at the earliest possible stage, and to have the means of implementing actions to prevent recurrence.

Analysis of defect data is conducted at Management Review Meetings to ensure the trend is one of continuous improvement. TW Metals' current goal is to reduce monthly credits to below 1.0% of total line items.

The Quality Assurance Manager is responsible for ensuring the implementation of the quality programme, the identification of quality related problems and the initiation of corrective actions. He has the authority and organisational freedom to resolve all such problems but in the unlikely event of an irreconcilable difference of opinion with another department this matter is referred to me. The Quality Assurance Manager is further responsible for keeping me advised of the status and adequacy of the quality programme.

The achievement of consistent quality calls for a systematic and disciplined approach by all employees in all activities associated with the customer's order. All personnel are given the necessary training and authority to perform their function and are aware of the Company's quality policy.

We believe our commitment to Quality must take precedence over all other considerations. To support this, it is necessary to:

- (a) Establish efficient processes without compromising Quality or integrity.
- (b) Further our education in, and understanding of, Quality standards and customer requirements.

The management and work force of TW Metals and Philip Cornes are fully committed to the principles of quality assurance and to the practices described in this manual.

Signed: \_\_\_\_\_  
Managing Director

## 2.1 DESCRIPTION OF THE DOCUMENTED SYSTEM

- 2.1.1 The Quality System is documented in three (3) tiers and considers the requirements specified by ISO 9001:2000/AS9120

The three tiers comprise:

### 2.1.2 Quality Manual

The Quality Manual is applicable to TW Metals UK, France, Poland & Philip Cornes.

It describes the policy practised to satisfy the requirements of ISO 9001:2000/AS9120 ( ISO 9001:2000 only for Philip Cornes ) and allocates responsibilities within each facility.

### 2.1.3 Operating Procedures.

These are local documents and prescribe the procedures, which are implemented to fulfil the requirements of the Quality Manual and allocate responsibilities within the Quality System. The list of Operating Procedures is shown in the Table of Contents.

### 2.1.4 Work Instructions/Operational Control Plans for Processes

These are local documents and are issued where lack of such clear instructions would adversely affect the quality of the product. A list of these is shown in the Table of Contents.

## 2.2 MANUAL ADMINISTRATION

### 2.2.1 Forms of Manual

There are two forms of this manual, controlled and uncontrolled. Controlled copies may be of a loose leaf form or of electronic format.

Loose leaf copies are stamped "CONTROLLED" in red ink, numbered and generally held in hard covered binders.

Controlled copies in electronic format are a "shared document" on the PC for viewing only. Access for amendment is restricted to TW Metals and Philip Cornes QA Manager.

Any printed copies, unless stamped "CONTROLLED" in red ink are uncontrolled and whilst up-to-date at the time of issue, will not be updated thereafter.

No record is maintained pertaining to the issue of "uncontrolled" printed copies.

### 2.2.2 Control of Amendments to Quality Documentation

The Quality Manual, the supporting Procedures and Amendments thereto are issued under the authority of the Quality Assurance Manager.

Amendments approved by the Quality Assurance Manager are implemented by re-issuing all pages in the relevant section, with the revision status in the footnote of each re-issued page raised by one.

Revisions are notified to all staff by email or in the case of printed copies, the pages are accompanied by a suitably amended Revisions List. Recipients are responsible for destroying superseded pages of any printed copies.

## 2.3 ACCESS OF CUSTOMER'S REPRESENTATIVE

Reasonable access and facilities are provided to enable the customer, customers client/representative or Aviation Authority to confirm that the quality system is effective and that the product conforms with the specified requirements. The information provided in, or derived from, such access shall be considered confidential between the purchaser and TW Metals/Philip Cornes and shall not be used for purposes other than contract requirements or divulged to any third party without prior written consent from the Managing Director.

### **3.0 ORGANISATION**

The responsibilities and authority of each of the positions which influence product quality or the effectiveness of the quality management system are defined in this section. The lines of responsibilities and interrelation of such personnel are also shown schematically in the organisation chart, which can be found at paragraph 3.1.10. Responsibilities are further defined in the Company Operating Procedures and, where applicable, quality plans. In-house verification requirements and responsibility for their fulfilment are described in this manual and the supporting procedures.

#### **3.1 RESPONSIBILITIES**

3.1.1 The Managing Director is responsible for:

- a) The overall management of the Company
- b) The preparation and authorisation of all contracts
- c) Periodic review of the Quality management System
- d) Authorisation of the policy statement
- e) The identification and provision of resources needed to support the business.

**R** 3.1.2 The Sales Managers are responsible for:

- a) Dealing with customer enquiries
- b) The preparation of quotations
- c) Handling customer orders

**R** 3.1.3 The Finance Director is responsible for the following areas:

- a) Quality Assurance/Control  
(Note: For day to day running activities)
- b) Accounts/Credit Control
- c) Information Technology

3.1.4 The Purchasing Manager is responsible for:

- a) Specifying all purchasing requirements
- b) Maintenance of Approved Vendors List

3.1.5 In addition to those referenced at para 5.5 further on, The UK Quality Assurance Manager has overall responsibility for the following activities in all European Districts, but designates on site responsibilities to the Quality Controller at TW France and the Warehouse Manager at TW Polska.

- a) Authorisation and Administration of the Quality Assurance programme, the maintenance of this Manual and other quality documents
- R** b) Ensuring that the relevant customers who have issued TW Metals & Philip Cornes with 2<sup>nd</sup> Party Approvals are informed if any significant changes to the company's 3<sup>rd</sup> Party accreditation occurs, including lapse/withdrawal as required.
- c) Ensuring that standards of inspection and testing of all products comply with the customer's requirements
- d) Ensuring that the quality policy of the Company is understood by all employees
- e) Investigating the cause of any non-conforming items
- f) Investigating customer complaints and advising the Managing Director of the cause of defects
- g) Endorsement of Certificates of Conformity for products, Material Certificates, N.D.T. certificates and any other customer specified document
- h) Review of suppliers material test certification and release of material to goods inwards inspection
- i) Operation of the system for planned calibration of measuring and test equipment
- j) Carrying out audits of the quality programme and preparing audit reports

- k) Maintaining an orderly record system to permit retrieval of records relating to quality for all contacts
- l) Maintaining effective communications with external inspection authorities
- m) Approval and disapproval of suppliers as relevant.

3.1.6 The Warehouse Manager is responsible for:

- a) Goods inwards inspection
- b) In-process inspection
- c) Final inspection and test
- d) All storage, packaging, identification and shipping
- e) Ensuring that despatches conform to the customer's requirements
- f) Control of free issue material

**R** 3.1.7 The Operations Manager is responsible for:

- a) Customer shipments
- b) Documentation for deliveries, including the preparation of certificates of conformity for products
- c) Administration of sub-contract services

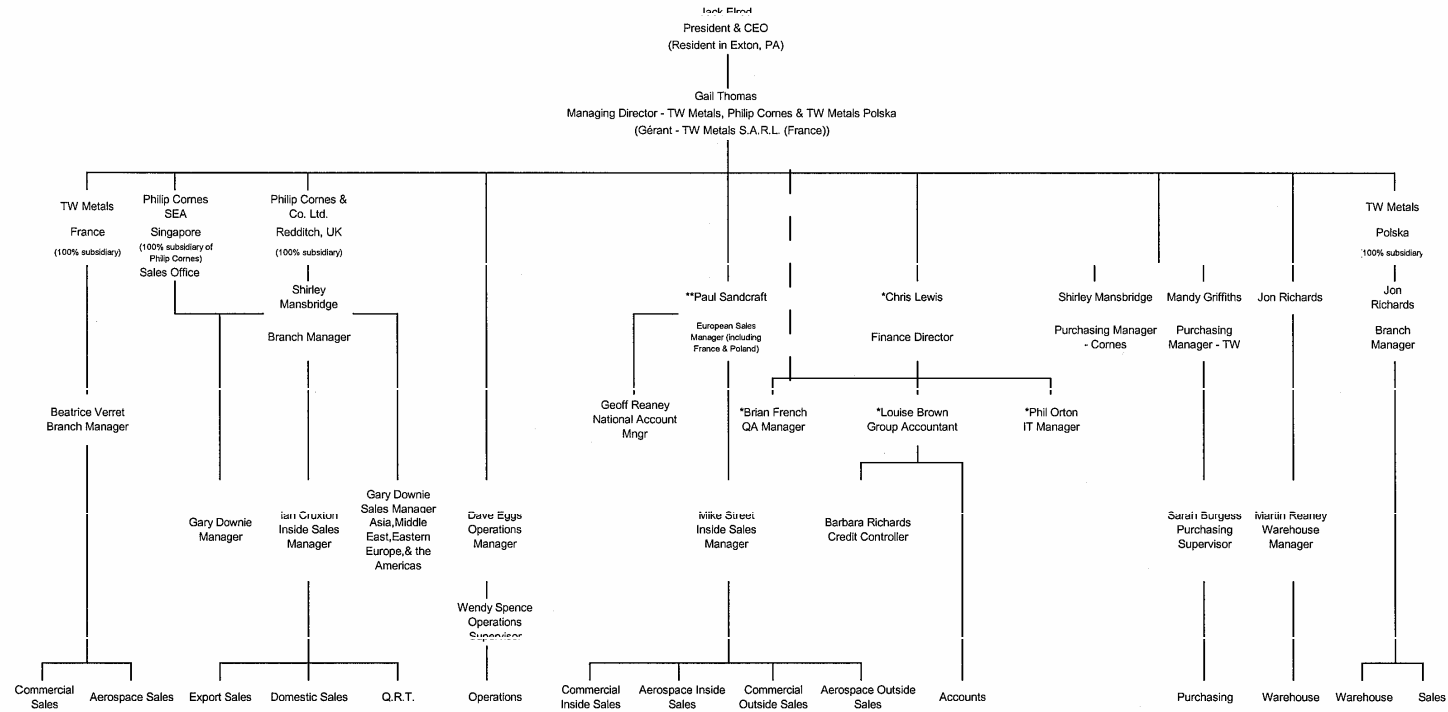
3.1.8 The IT Co-Coordinator is responsible for:

- a) Control of the computer system regarding security and maintenance

3.1.9 It is the responsibility of all employees to:

- a) Work within the bounds of the Company's documented quality programme
- b) Bring to the attention of their supervisor any incidence of non-compliance with the programme

- c) Report any gross defect to their supervisor
- d) Work in a professional and safe manner



\* These people have departmental responsibility in all companies  
 \*\* These people have departmental responsibility in Poland

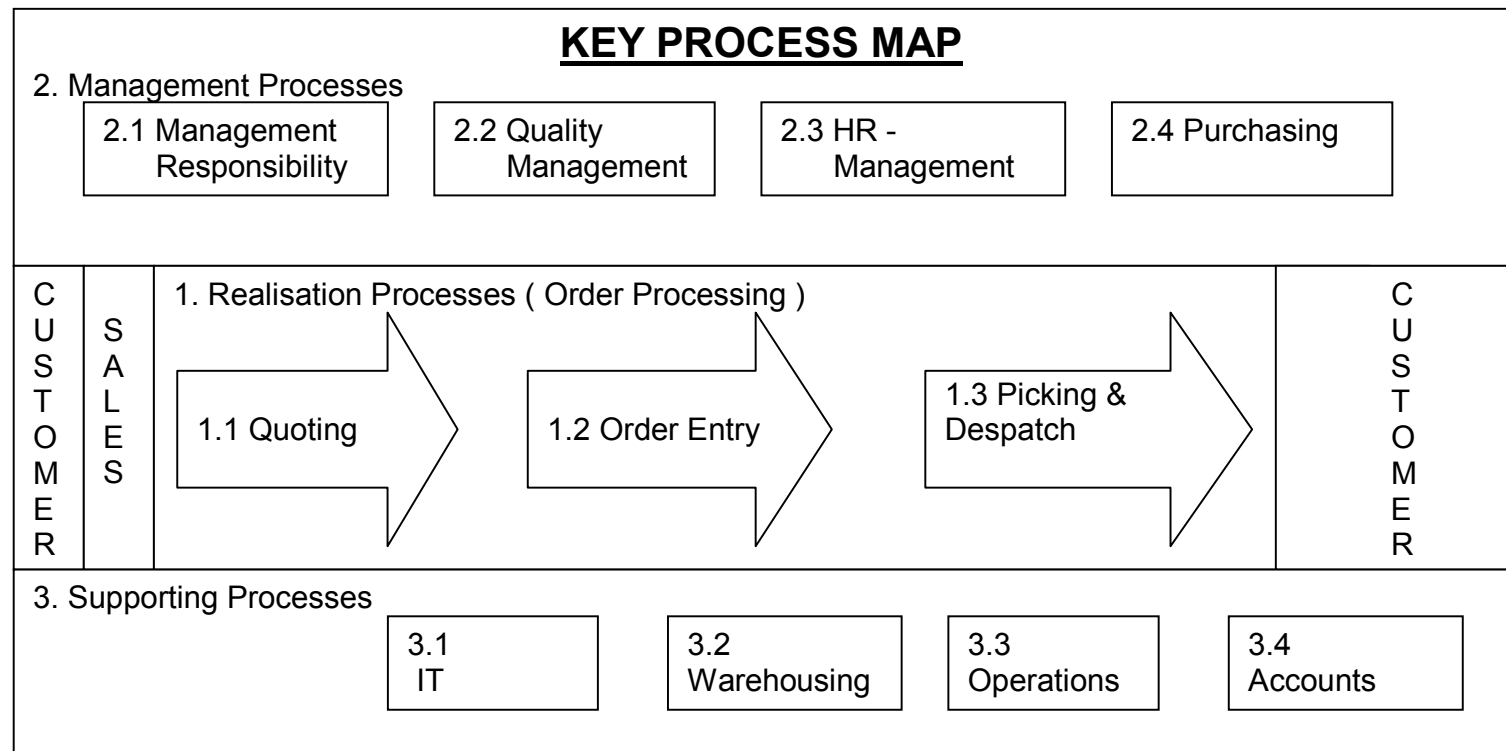
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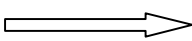
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T:\QA\Organisation Chart

## **4.0** QUALITY MANAGEMENT SYSTEM

- 4.1 A documented quality management system has been established, implemented, is maintained and continually reviewed for improvement opportunities.
- 4.1.1 The key processes needed for the quality management system and their application throughout the organisation are identified in the “Key Process” map on the following page.
- 4.1.2 The sequence and interaction of these processes are documented in the “Interaction of Key Processes” chart on the page following the “Key Process Map”. Individual processes are also documented as “Operational Control Plans” which can be found in section 3 of this quality manual.
- 4.1.3 In addition to the above the organisation has:
- a) Determined the criteria and methods needed to ensure that both operation and control of these processes are effective.
  - b) Ensured the availability of resources and information necessary to support the operation and monitoring of these processes.
  - c) Process objectives for each of the “Operational Control Plans” and reports produced for monitoring and analysis of these objectives to ensure achievement of planned results are detailed in a “Process Objectives Chart” which is published on the Company’s “T Drive” ( Public Drive for accessing by all staff )  
  
Process owners carry out regular reviews of the reports and apply improvement actions as relevant. The effectiveness of actions taken is reviewed against subsequent reports.
  - d) Should the need arise to outsource any processes, the control of this is identified within the quality
- R



Input to 		1. Realisation Processes (Order Processing)		2. Management Processes				3. Supporting Processes			
		1.1 Quoting 1.2 Order Entry	1.3 Picking & Despatch	2.1 Management Responsibility	2.2 Quality Management	2.3 HR Management	2.4 Purchasing	3.1 IT	3.2 Warehousing	3.3 Operations	3.4 Account
1. Realisation Processes (Order Processing)	1.1 Quoting 1.2 Order Entry		Customer requirements	Data on quotes & bookings	Customers QM requirements	Human resource requirements	Material requirements	Data for software requirements and maintenance	Data for scheduling	Customer shipping / document requirements	Data on quotes & bookings
	1.3 Picking & Despatch	Status of WIP		Invoicing data	Quality data. Release requirements	Human resource requirements	Inventory reduction data				Invoicing data
2. Management Responsibility	2.1 Management Responsibility	Communicating relevant business plan objectives & goals.			Communicating relevant business plan objectives & goals.		Communicating relevant business plan objectives & goals				
	2.2 Quality Management	General quality requirements per Q. Manual/Procedures & Instructions		Gen quality requirements, objectives, monitor & report performance		General quality requirements per Q. Manual/Procedures & Instructions		Data for software requirements and maintenance.	General quality requirements per Quality Manual/Procedures & Instructions		
	2.3 HR Management	Recruitment, training plans & records		Information re planning, recruitment & training			Recruitment, training plans & records.		Recruitment, training plans & records		
	2.4 Purchasing	Material costs and lead times	Supply of packing & warehouse equipment	Mat'l quotes. Approved suppliers	Supplier evaluation / approval	Human resource requirements		Requirements & details of incoming material	Data for incoming shipping requirements	Data for spend commitm	
3. Supporting Processes	3.1 IT	Software maintenance and user guidance/instruction		Information re new software and software performance data.		Human resource requirements	Software maintenance and user guidance/instruction				
	3.2 Warehousing	Work capacity / lead times	Health & safety/mat'l handling instructions	Data re maintenance of equipment, inspection & non conforming material.		Human resource requirements	Cyclic stock counts. Requests for warehouse equipment	Data for software requirements and maintenance.		Order completion, packing specs	Warehou Costs
	3.3 Operations	Shipping costs	Shipping instructions	Import/Export Costs. Invoicing data	Preparation of release certification	Human resource requirements	Tariff Codes Collection Costs		Despatch instructions & paperwork		Invoicing data Freight Costs/Clk
	3.4 Accounts	Credit check/release		Management Accounts data	Debit Notes Supplier Credits rec'd.	Human resource requirements	Spend Commitment	Equipment spend commitment	Insurance & Freight Claims		

## 4.2 Documentation Requirements

4.2.1 The quality management system documentation includes:

- a) A Quality Policy Statement containing quality objectives which can be found at paragraph 2.0 in section 1 of this quality manual. The policy statement is communicated to all personnel and copies are published on company noticeboards.
- b) The Quality Manual and its administration is described at paragraph 2.1 in section 1 of this quality manual.
- c) Documented Procedures and Work Instructions form section 2 and are described in section 1 at paragraph 2.1.3 & 2.1.4 of this quality manual.
- d) The main documents utilised to ensure the effective planning, operations and control of processes are:
  - i) Goods Outwards Note's (GON's) – These are automatically generated by the computer and given a unique internal order number following data entry of a customer order. The GON contains all customer requirements and is used to record final inspection and the relevant details of material supplied.
  - ii) Goods Inwards Note's (GIN's) – These are computer generated upon receipt of material from suppliers and are used to record incoming inspection.
  - iii) "Production Schedule" (UK Only) – this is circulated to all relevant staff via email on daily basis, containing lead times/cut off times for all order types.
- e) Record requirements are detailed section 1 at paragraphs 4.2.3 and 4.2.4 of this quality manual.
- R** f) At the time of print, there are no regulatory authorities which impose quality system requirements on the company.

4.2.2 Quality Manual: The structure of the quality manual is described in section 1 paragraphs 2.1 and 2.2.

- a) The scope of the quality management system is detailed in section 1 paragraph 1.0 b) and includes the exclusions from ISO 9001:2000 and AS9120.

- b) Documented Procedures form section 2 of the quality manual and a list of them can be found in the table of contents.  
The relationship between ISO 9001:2000/AS9120 and the documented procedures is shown in a correlation chart in front pages of the quality manual.
- c) The interaction of processes is referenced at paragraph 4.1.2

4.2.3 Procedure Number 19 “Document Control” in section 2 of the quality manual details the documents required by the quality management system, including appropriate documentation to verify the status of products and when relevant how changes to documentation are co-ordinated with customers and/or regulatory authorities.

The procedure also defines how these documents are controlled in accordance with the requirements of ISO 9001:2000/AS9120.

4.2.4 4.2.4 Procedure Number 22 “Retention of Quality Records” in section 2 of the quality manual details the specific records required by the quality management system and defines the controls employed for identification, storage, protection, retrieval and disposition.

Material test certificates are retained indefinitely and all other quality records for a minimum of ten years.

Records are made available for review by customers and regulatory authorities in accordance with contract or regulatory requirements.

## **5.0 MANAGEMENT RESPONSIBILITY**

5.1 TW Metals and Philip Cornes management team assure the quality policy and any statutory and regulatory requirements are understood, implemented and maintained by means of employee training, posted copies of the policy statement and day to day communication with employees. This is further supported by periodic management reviews of the quality system, continuous improvement initiatives, monitoring quality objectives and ensuring the availability of resources.

5.2 The Sales Management team ensure that customer product requirements are met via enquiries, purchase orders & amendments, customer specifications and when relevant, liaison with material manufacturers for any special/supplementary requirements.

The aim of enhancing customer satisfaction is met by review and analysis of customer visit reports, customer's forward forecasts for material, customer complaints, customer's supplier performance reports and monitoring on time delivery performance .

5.3 Further to paragraph 5.1 above, the Quality Policy Statement, signed by the Managing Director includes a commitment to comply with requirements and continually improve the effectiveness of the quality management system. Monthly performance reports provide the framework for establishing and reviewing quality objectives and the continuing suitability of quality policy

5.4 In addition to the objectives contained in the Quality Policy Statement, a Quality System Development plan is established annually and is periodically monitored and updated throughout the year. The plan ensures the integrity of the quality management system, when changes are planned and implemented.  
Objectives are also established and reviewed during individual performance reviews.

5.5 Responsibilities and authorities are defined throughout paragraph 3.0 in section 1 of this quality manual.

The UK Quality Assurance Manager has been appointed by the management with overall responsibility and authority in all European Districts to include:

( On site responsibilities for day to day QA activities are designated to the Quality Controller at TW France and Warehouse Manager at TW Polska )

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

- b) Reporting to top management on the performance of the quality management system and any need for improvement.
- c) Ensuring the promotion of awareness of customer requirements throughout the company
- d) The organisational freedom to resolve matters pertaining to quality

5.5.1 Responsibilities, authorities and the effectiveness of the quality management system are communicated via:

- Meetings
- Email notifications
- Notices/publications/performance measures on noticeboards
- Induction Training
- Quality Awareness Training Sessions

5.6 Management Review meetings are conducted at planned intervals ( usually twice per year ) to review the quality management system and ensure its continued suitability, adequacy and effectiveness. Improvement opportunities, system changes, quality policy and quality objectives are also appraised. Procedure No 24 "Quality System Review Meeting" in section 2 of this quality manual details the specific inputs and outputs from these meetings which are recorded in the form of minutes and action lists.

## 6.0 RESOURCE MANAGEMENT

6.1 TW Metals & Philip Cornes has determined, provided and periodically review the resources needed to implement and maintain a quality management system based on ISO 9001:2000 and AS9120 with the aim of continually improving it's effectiveness to assure customer satisfaction by meeting and exceeding customer and regulatory requirements.

6.2 As described in Procedure No 21 "Training Needs and Training Records" which can be found in section 2 of this quality manual, requirements for each person's job are detailed on training record forms and the competency of personnel performing work affecting product quality is determined on the basis of appropriate education, training, skills and experience.

Training is provided internally and externally as appropriate and is recorded on individual training record forms.

The effectiveness of training is evaluated by:

- Supervision of employee performance on an ongoing basis
- Review of monthly performance reports, detailing errors by individuals affecting supplies to customers.
- Annual employee performance appraisals.

In addition to the above, Quality Awareness training sessions are periodically held to ensure personnel are aware of the relevance and importance of their activities and how they contribute to the achievement of quality objectives

6.3 TW Metals & Philip Cornes determines, provides and maintains the infrastructure needed appropriate to it's business. Infrastructure includes

- buildings, workspace and utilities
- process equipment, both hardware and software
- support services, such as communication and transportation.

Regular maintenance of equipment is performed to ensure consistency of purpose.

6.4 Periodic audits are carried out by Health & Safety Consultants and Environmental Officers which help ensure the companies continued compliance with regulations, good housekeeping and safe work practices.

## 7.0 PRODUCT REALIZATION

7.1 Planning of product realization is not applicable to TW Metals & Philip Cornes business

### 7.2 Customer Related Processes:

7.2.1 Determination of requirements: Customer order requirements are received via enquiries, purchase orders and amendments to purchase orders.

The Sales department determine and enter customer requirements into the system, including requirements not stated by the customer, but necessary for specified or intended use where known and statutory/regulatory requirements if applicable along with any additional requirements determined.

Post delivery requirements are not applicable to TW Metals & Philip Cornes business.

7.2.2 In accordance with Procedure No's 1 "Customer Enquiries & Quotations and 2 "Handling a Customer Order & Amendment" which can be found in section 2 of this quality manual, the Sales department are responsible for:

- Reviewing all details of enquiries/orders & amendments to ensure they are achievable prior to quoting and commitment to supply, involving other departments as necessary.
- Entering orders into the system and ensuring all requirements are defined
- Resolving any differences in requirements from those previously expressed
- Maintaining records of review results and actions arising.
- Ensuring any verbal requirements are confirmed before acceptance.
- Amending relevant documentation and informing relevant personnel of any changes to requirements.

7.2.3 Communication with customers is determined and implemented via:

- Visits to customers
- Customer visits to TW Metals & Philip Cornes
- Periodic mailshots of brochures/catalogues containing product information and details of the company activities
- Monitoring customer feedback and complaints
- Follow up calls via telephone, email, fax and visits relevant to enquiries, contracts and order handling, including amendments

**7.3** Design and development is not applicable to TW Metals & Philip Cornes business.

#### **7.4 Purchasing**

7.4.1 TW Metals & Philip Cornes ensure that purchased product conforms to specified requirements during receipt inspection as detailed in Procedure No 6 “Goods Inwards & Inspection” which can be found in section 2 of this quality manual.

The type and extent of control applied to the supplier and product inspection is dependant on the type of material and known requirements of potential or existing customers.

Suppliers are selected on their ability to supply in accordance with requirements. Criteria for selection, evaluation and re-evaluation is detailed in Procedure No 4 “Supplier/Sub-Contractor Approval” Records of assessments and actions are maintained.

Procedure No 4 also details:

- Maintenance of the approved suppliers list, which includes suppliers scope of approval.
- How supplier performance is monitored, the levels of control implemented as a result of reviews and actions taken when suppliers do not meet requirements.

Controls in place throughout the quality system prevent the purchase of counterfeit/suspect unapproved products.

TW Metals & Philip Cornes recognise their responsibility for the quality of all products purchased from suppliers, including customer designated sources.

7.4.2 Specific details of information included on Purchase Orders is described in Procedure No 3 “Raising Purchase Orders & Amendments” which can be found in section 2 of this quality manual. The information contains a full description of the material and all other specific requirements of the purchase.

All requirements of AS 9120 are either included in the purchase order or in some instances in TW Metals & Philip Cornes “Conditions of Purchase” document which is referenced on all purchase orders.

All purchase orders are checked to ensure the adequacy of specified requirements and signed by authorised personnel prior to being forwarded to the relevant supplier/sub-contractor.

7.4.3 Verification of purchased product is carried out in accordance with Procedure No 6 “Goods Inwards Inspection” which can be found in section 2 of this quality manual, thus providing the following mandatory inspection against all receipts

- Initial receipt inspection check for damage and correct documentation being present.
- Mill test report checks against relevant material specifications.
- Full traceability: ie Certificates of Conformity for each company in the chain of supply ( for aerospace products)
- Visual and dimensional check of material, which includes checks for surface condition, quantity, size, grade, specification, material identification markings and any other specified inspection instructions.

Any additional verification/inspection requirements are contained in the purchase order, ie the intent to perform verification at the suppliers premises. Those requiring additional TW Metals/Philip Cornes receipt inspection activities are entered as an “Internal Instruction” during purchase order entry which ensure the instruction prints on Goods Inwards inspection documentation.

Where specified in the contract, the customer or customer’s representative is afforded the right to verify at the supplier’s premises and the organisation’s premises that sub-contracted product conforms to specified requirements.

Verification by the customer is not used as evidence of effective control of quality and therefore does not absolve TW Metals & Philip Cornes of the responsibility to provide acceptable product or preclude subsequent rejection by the customer.

## 7.5 Production and service provision

- 7.5.1 TW Metals & Philip Cornes do not carry out material production or servicing, but do cut material to length according to customer requirements.

Procedure No 7 “In Process Inspection” and Work Instruction No 3 “Cutting” which can be found in sections 2 and 3 respectively of this quality manual detail the cutting machines utilised, method employed and inspection controls in place.

- 7.5.2 Validation of processes for production and service provision is not applicable to TW Metals & Philip Cornes business

7.5.3 Identification and Traceability:

Procedure No 12 “Product Identification and Traceability” which can be found in section 2 of this quality manual, describes how items are identified, their identification recorded and how they can subsequently be traced.

All items received are marked in accordance with the relevant material specification by the manufacturer.

Material identification is maintained at all stages from receipt through to despatch.

Unique identification is typically by manufacturers cast/heat/lot number/batch number, which is recorded into the system, traceable to the relevant certification and provides a complete history of the item.

Material is maintained at a known status at all times.

Work Instruction No 3 “Cutting” describes the controls in place to ensure traceability is maintained when items are cut to length and the method of transferring manufacturers identification markings onto cut pieces.

The identification of the configuration of the product is maintained to identify any differences between the actual configuration and the agreed configuration when required.

- 7.5.4 Customer Property: Any customer property supplied to TW Metals & Philip Cornes is protected and safeguarded in accordance with the requirements of the relevant customer.

Procedure No 5 “Customer Supplied Material” describes the care and control employed from receipt, storage, subsequent cutting when applicable, through to despatch of customer supplied product.

The method to identify and record customer products in the event of loss, damage or any other reason for the product becoming unusable is defined in the procedure. Any such occurrences are reported to the customer immediately.

7.5.5 Preservation of Product: Preservation, protection, identification, handling, packaging and storage of material from receipt, during storage, internal processing ( ie cutting ) through to despatch is described in the following procedures as relevant:

- Procedure No 6 “Goods Inwards & Inspection”
- Procedure No 9 “Protection and Storage”
- Procedure No 10 “Handling of Goods”
- Procedure No 11 “Packing and Shipping”

The above procedures include, where applicable in accordance with product specifications and/or regulations, provisions for:

- Prevention, detection and removal of foreign objects
  - Special handling for sensitive products
  - Marking and Labelling including safety warnings
  - Stock Rotation
  - Environmental controls
  - Documents required by the contract/order to accompany the product, being present at delivery and protection against loss and deterioration.
- ( Cleaning, Shelf life control and hazardous materials are not relevant to TW Metals & Philip Cornes business )

7.6 Control of monitoring and measuring devices

7.6.1 Procedure No 25 “Calibration Labelling and Records, which can be found in section 2 of this quality manual describes the method employed to comply with the requirements of ISO 9001:2000 and AS9120 for the control of monitoring and measuring equipment.

## 8.0 Measurement, Analysis and Improvement

8.1 Procedure No 18 “Appraisal of Defect Data & Determining Corrective Action” which can be found in section 2 of this quality manual describes how the company plans and implements the monitoring, measurement, analysis and improvement processes needed to demonstrate conformity of the product, to ensure conformity and continually improve the effectiveness of the quality management system.

### 8.2 Monitoring & Measurement

8.2.1 Customer Satisfaction: Information relating to customer perception as to whether the company has met customer requirements is monitored via the following:

- Customer Complaints System
- Customer Visits
- Customer’s Supplier Performance Reports
- On time delivery performance

8.2.2 Internal Audits: Comprehensive, planned and documented internal quality audits are performed and scheduled on the basis of the status and importance of the activity and take the results of previous audits into account. Quality audits verify conformance to planned arrangements and the requirements of ISO 9001:2000/AS 9120.

Audits are performed by trained personnel independent of the area being audited.

Audit checklists are prepared and utilised, to ensure all system aspects are covered.

Follow-up audits against any findings are conducted to verify and assess the effectiveness of corrective and preventive actions which are implemented in a timely manner by the management responsible for the relevant area where the finding was identified.

Procedure No 23 “Internal Quality Audits” which can be found in section 2 of this quality manual describes the above in more detail

### 8.2.3 Monitoring and Measurement of Processes:

TW Metals & Philip Cornes management focus on the timely completion of individual jobs within the key processes ensures daily monitoring of processes, as failure to achieve planned results instigates investigation and corrective/preventive action.

Reports detailing overdue orders and the systems inability to fulfil an order are printed on a daily basis which identify potential problems in the process flow.

Daily Invoicing registers are also printed and reviewed which identify any value discrepancies which could be caused by an adverse level of scrap or administration error.

Processes are also monitored by the various quality management system aspects as detailed in this quality manual.

#### 8.2.4 Monitoring and Measurement of Product:

Inspection activities at the various stages of process flows verify product requirements are met.

When a material non-conformity is identified, the entire cast/heat/lot is quarantined until such time as it may be proven that the non-conformity is restricted to a part of the relevant batch only.

When required, inspection plans are submitted for customer approval.

Records of satisfactory inspection are maintained, which also indicate the individual that authorised the product for release.

Unless otherwise authorised by the Quality Assurance, Quality Control Manager or the customer in writing, no material can be released for despatch until all inspection activities have been satisfactorily carried out.

#### Inspection Documentation

Requirements for measurement/inspection are detailed in the following inspection procedures/ work instructions listed below:

- Procedure No 6 “Goods Inwards and Inspection”
- Procedure No 7 “In Process Inspection”
- Procedure No 8 “Final Inspection”
- Work Instruction No 3 “Cutting”

Additional inspection requirements including, when relevant, acceptance criteria are detailed on the appropriate document used to record the results of inspection.

#### 8.2.5 All inspection records are made available, or upon request, copies provided to the customer for evidence of product conformity.

Documentation used to record final inspection and despatch of material for all orders, includes:

- Unique order reference
- Customer name and address

- Customer PO No
- Material description
- Quantities being supplied per cast/heat/lot number
- Evidence of final inspection & 1st off inspection when applicable
- Order instructions including certification requirements
- Packing specification

The amount delivered relevant to the amount received can be cross referenced on the computer against the relevant stock record.

Manufacturers test certificates are supplied with all orders. All aerospace orders also receive a TW Metals Certificate of Release in accordance with the relevant quality system approval/standard requested in the order.

TW Metals Certificate of release references the manufacturers conformance documents.

### **8.3 Control of Non Conforming Product**

- 8.3.1 Procedure No 14 "Non-Conforming Material/Items" and No 15 "Quarantine System – Non-Conformity Rack" which can be found in section 2 of this quality manual define how it is ensured that product which does not conform to requirements is identified and controlled to prevent unintended use or delivery.
- 8.3.2 The above referenced procedures also describe the method employed to comply with the requirements of ISO 9001:2000 and AS9120 for the control of non-conforming product.

### **8.4 Analysis of Data**

- 8.4.1 TW Metals and Philip Cornes determines, collects and analyses data from the topics listed below to demonstrate the suitability and effectiveness of the quality management system and to identify where improvements in the effectiveness of the system can be made.

- Non Conforming Material
- Supplier Performance
- Customer Complaints
- Customer Satisfaction
- On time delivery performance
- Internal Audits
- 2<sup>nd</sup> & 3<sup>rd</sup> Party Quality System & Process Audits
- Process Performance

### **8.5 Improvement**

- 8.5.1 Opportunities for improvement identified from analysis of data, management reviews, quality policy and supporting objectives as defined throughout this quality manual provide the basis for Continually improving the effectiveness of the quality management system.
- 8.5.2 In the event of a system non-compliance, customer complaint or material non-conformity, appropriate corrective action is taken. Root causes are identified, actions are determined/implemented to rectify the situation and to ensure the non-conformity does not recur. Where appropriate, timescales are set for the completion of assigned actions which are recorded and reviewed for effectiveness upon completion. Untimely or ineffective actions are re-addressed as necessary. Corrective action requirements are flowed down to suppliers when

they are responsible for the non-conformity.

- 8.5.3 Potential non-conformities may be identified during contract review, inspection/verification and validation testing, internal audits, cyclic stock checks, other quality system aspects or by any individual during their daily routine.

Following evaluation of potential non-conformities identified, root Causes are established, necessary actions determined/implemented to prevent the potential non-conformity from materialising or it's potential to recur. Where appropriate, timescales are set for the completion of assigned actions which are recorded and reviewed for effectiveness upon completion.

Consideration is always given to any existing stock affected by the issue and is quarantined until such time as the potential problem is satisfactorily resolved.

All customers are notified of any suspect material which may have been supplied, providing details of the potential non-conformity and the actions being taken.