


<p><b>Chapter 8</b></p> <p><b><u>Appendix Procedure: 843-10</u></b></p> <p>(Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 1 of 11</u></b></p>	<p><b><u>Chapter name:</u></b></p> <p><b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u> Purchasing</b></p> <p><b><u>Appendix name:</u></b></p> <p><b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan Quality Assurance QI-2466</b></p>
---	---	--

**1. General Provision:**

1.1. Contract Review

When receiving an order, the supplier / subcontractor shall verify that all the requirements are clear and applicable. They shall verify that delivery time, price, and terms of payment are applicable. In case of updates / questions the supplier / subcontractor shall apply to the buyer in Tungaloy's Purchasing Dept.

1.2. Important of ethical behavior

The supplier / subcontractor shall understand the important of ethical behavior by considering about compliance, corporate philosophy and product safety.

1.3. Product Safety

Product Safety is meaning it that products are the situation of satisfy for the design or intended purpose, without to reach the not acceptable risk of an injury to people or damage of property. Therefore to insure product safety of the whole life cycle of provided products, shall be planed process like to repeat from (1) to (4) as follows, conducted and managed.

(1) ※<sup>1</sup>Evaluation of the hazard and management of related risks.


To conduct ※<sup>2</sup>FMEA for the evaluation of the hazard, and specify problems as risk.

※<sup>1</sup>Evaluation of the hazard :

----- To evaluate "The degree of the not acceptable risk of an injury to people or damage of property".

※<sup>2</sup>FMEA (Failure Mode and Effects Analysis) :

----- FMEA which is technique to prevent for some trouble by

<p><b>Chapter 8</b></p> <p><b><u>Appendix Procedure: 843-10</u></b></p> <p>(Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 2 of 11</u></b></p>	<p><b><u>Chapter name:</u></b></p> <p><b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u> Purchasing</b></p> <p><b><u>Appendix name:</u></b></p> <p><b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan Quality Assurance QI-2466</b></p>
---	---	--

conduct to countermeasure in advance, guess ahead possibility to issue problems in systems and processes as Failure mode, and find out problems on the drawing and the plan by conducting analysis of estimated root cause and effects in advance.

And there are FMEA applicable each operation in design, process, works, facility etc.

(2) Management of Safety Critical Item.

To clarify the special requirement of management for the identified Safety Critical Item based on FMEA of (1).

(3) Analyzing of phenomenon to influence for product safety, and Reporting.

To connect to countermeasure not only identify the cause and corrective action but analysis/evaluation of reliability based on time base data for the non-conforming phenomenon possible to issue in Safety Critical Item of (2).

(4) Inform the phenomenon, and education for employee.


To conduct education/training to employee by informs the measurement and the effect of analysis on (3).

1.4. Counterfeit Parts

Counterfeit refers to an unauthorized copy, fake, substitute or remodeled part (for example, material, parts, and component) deliberately falsified.

1.4.1. Be delivered products to us should have to same design, same the supplier / subcontractor, same production process including same production place. Prohibit change intentionally or without permission, and when there is a necessity for change, please promptly contact purchasing department of Tungaloy corporation.

1.4.2. For prevent counterfeit parts, manage products that don't be counterfeit

<p><b>Chapter 8</b>  <b><u>Appendix Procedure: 843-10</u></b>          (Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 3 of 11</u></b></p>	<p><b><u>Chapter name:</u></b>  <b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u></b> <b>Purchasing</b></p> <p><b><u>Appendix name:</u></b>  <b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan          Quality Assurance          QI-2466</b></p>
---	--	--

parts, to prepare evidences to objectively insure quality (for example certificate of conformance, examination or inspection report, documents of statistics analysis, specification sheets, production process management documents, and validation reports of production processes etc.) for products including provide from the supplier /subcontractor, and when purchasing department of Tungaloy corporation request attaching or submitting with products, please promptly correspond.

To manage products that don't be counterfeit parts is please refer to following as the example.

< One of the way to manage products that don't be counterfeit parts


•••To classify from (a) to (d), and manage products >

- (a) Products that your company has the right of the design.
- (b) Products that other the supplier / subcontractor has the right of the design.
- (c) Products that there is general standard.
- (d) Products that the specific company has the required specification or there is no general standard.

1.4.3. For obtain products that don't be counterfeit parts, please inform the supplier / subcontractor the above requirement, and get evidences to objectively insure quality.

1.4.4 When the supplier / subcontractor found the product of which the possible of counterfeit or found the counterfeit, isolate the counterfeit and need to proceed as nonconformities. (Please refer to 8. Treating nonconformities.)

1.4.5. The supplier / subcontractor shall require the above requirement of the counterfeit to the supplier / subcontractor that he is using.

<p><b>Chapter 8</b></p> <p><b><u>Appendix Procedure: 843-10</u></b></p> <p>(Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 4 of 11</u></b></p>	<p><b><u>Chapter name:</u></b></p> <p><b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u> Purchasing</b></p> <p><b><u>Appendix name:</u></b></p> <p><b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan Quality Assurance QI-2466</b></p>
---	---	--

**2. Raw Material:**

2.1. Subcontractors:

2.1.1. The subcontractor shall verify manufacturing using the raw material which is required by Tungaloy's drawing / order when applicable.

2.1.2. The subcontractor shall verify that there is not more than one batch of raw material (lot) within the same production order. If for any reason, the raw material is insufficient, the subcontractor shall request additional raw material from the same lot from Tungaloy, or he shall ask for an update of the order quantity and issue of a new order with a new quantity to be used with another lot of raw material.

2.1.3. Subcontractor, who does machining and receives the raw material from Tungaloy, is exempted of validating the raw material.

2.2. Supplier:

2.2.1. The supplier shall use raw material which is required by Tungaloy's drawing / order, or raw material which is approved by Tungaloy, from the supplier's stock for production.


2.2.2. The supplier shall verify that there is no mixing between two batches (two lots) of raw material within the same order.

**3. Drawings:**

3.1. The supplier / subcontractor shall verify that production is made according to the drawing version which is attached to the order.

3.2. Manufacturing according to a hand written updated drawing, unless formally approved by the purchaser, is prohibited. This approval will be valid for a specific order, only.

3.3. Whatever the situation may be, the supplier / subcontractor shall not pass / copy/ introduce Tungaloy's drawings - to a third party. When nothing else

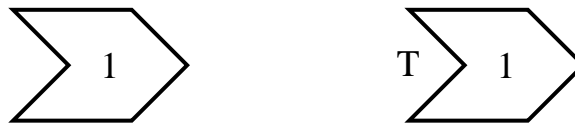
<p><b>Chapter 8</b>  <b><u>Appendix Procedure: 843-10</u></b>          (Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 5 of 11</u></b></p>	<p><b><u>Chapter name:</u></b>  <b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u></b> Purchasing</p> <p><b><u>Appendix name:</u></b>  <b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan          Quality Assurance          QI-2466</b></p>
---	---	--

was agreed upon- the drawings should be returned to Tungaloy together with the consignment, or be destroyed.

3.4. The subcontractor shall attach the "Final"(-identification document supplied by Tungaloy) to the products' shipment to Tungaloy.

**4. Key Characteristics (Critical):**

4.1. The following indications (symbols), when appear in the drawings, determine key characteristics (critical dimensions) for the supplier / subcontractor.




4.2. All key characteristics shall be controlled during production processes.

4.3. All key characteristics shall be inspected at the stage of final inspection of the supplied products (see paragraph 9).

**5. FAI (First Article Inspection):**

5.1. Upon request the supplier / subcontractor shall conduct a First Article Inspection approval process. The vendor shall use application forms designated by Tungaloy. The first product, which is submitted within FAI, will be identified and supplied together with all of the products supplied from the same purchase order.

5.2. The supplier / subcontractor shall not conduct technological changes in the product or processes and shall not change his vendors or his production facility location(s) during manufacturing of Tungaloy's purchased items, without a documented approval from Tungaloy, in advance. The approval

<p><b>Chapter 8</b></p> <p><b><u>Appendix Procedure: 843-10</u></b></p> <p>(Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 6 of 11</u></b></p>	<p><b><u>Chapter name:</u></b></p> <p><b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u> Purchasing</b></p> <p><b><u>Appendix name:</u></b></p> <p><b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan Quality Assurance QI-2466</b></p>
---	---	--

shall define the necessity of re-processing FAI approval. All of the above refer only to products that were designed by Tungaloy.

**6. F.O.D (Foreign Object Debris):**

6.1. Process for assuring the absence of F.O.D is to be applied during production and packing operations using work instructions and /or applicable technologies to detect foreign objects.

**7. Special Processes:**

7.1. Only qualified the supplier / subcontractor by Tungaloy are approved to perform special processes.


7.2. When performing the following processes required of Tungaloy's purchased items and defined as Special Processes (e.g. Heat Treatment, Coating, Welding, Brazing, etc.), the supplier / subcontractor shall act, according to the requirements set forth in the following paragraphs.

7.3. The supplier / subcontractor shall verify production according to relevant regulatory requirements and relevant international standards.

7.4. The supplier / subcontractor shall define, validate (approve) and qualify all special processes carried out for Tungaloy complying with Tungaloy's requirements.

7.5. The supplier / subcontractor shall document and store all control data records of special process (not the products of the process, but the process parameters, such as graphs etc.), for a period of 5 years.

7.6. The supplier / subcontractor shall document training and qualification of personnel operating special process. Training and qualification shall be based on theoretical and actual knowledge that is related to the special process.


<p><b>Chapter 8</b></p> <p><b><u>Appendix Procedure: 843-10</u></b></p> <p>(Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 7 of 11</u></b></p>	<p><b><u>Chapter name:</u></b>  <b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u></b> Purchasing</p> <p><b><u>Appendix name:</u></b>  <b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan  Quality Assurance  QI-2466</b></p>
---	---	--

- 7.7. The supplier / subcontractor shall document and maintain the calibration results of all the control facilities of the special processes for a period of 5 years.
- 7.8. The supplier / subcontractor shall allow right of access to Tungaloy's customers, to any authorized representative of Tungaloy, and to regulatory authorities to all facilities and applicable records involved, to conduct surveys or qualification audits of the special process and of personnel operating special process planned in advance.
- 7.9. Approval of items - the supplier / subcontractor shall maintain a defined process for approving items undergoing special process before shipment.
- 7.10. Items supplied will be identified and traceable to special processes.
- 7.11. Changes in special processes e.g. raw material, Standard Operating Procedures, equipment – the supplier / subcontractor shall notify Tungaloy of any changes made and will validate that the changes do not affect the quality of the supplied items. All changes and validation will be documented and stored.
- 7.12. The supplier / subcontractor shall present upon request a systematic validation process defined in his procedures, for all special processes carried out for Tungaloy.

**8. Treating nonconformities:**

- 8.1. Products of nonconformities are products of which don't satisfy the required specification. And those products include products of nonconformities that received from provider or specified from customer, and materials, parts, work in process, finished products, and counterfeit parts.
- 8.2. The supplier / subcontractor shall be establish "confirmation of contents for



<p><b>Chapter 8</b>  <u><b>Appendix Procedure: 843-10</b></u>          (Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><u><b>Page: 8 of 11</b></u></p>	<p><u><b>Chapter name:</b></u>  <b>Information for External Providers</b></p> <p><u><b>Scope of procedure:</b></u> <b>Purchasing</b></p> <p><u><b>Appendix name:</b></u>  <b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan          Quality Assurance          QI-2466</b></p>
---	--	--


products of nonconformities, the division of responsibility for a judgement and a treatment, and the authority", and approval process for these processes and decision members by the document.

- 8.3. When products of nonconformities be found, please note don't use wrongly and hand over wrongly to the next process, and shall isolate and manage those products. When products of nonconformities be found, please note don't use wrongly and hand over wrongly to the next process, and shall isolate and manage those products. And also please inform to the other supplier / subcontractor, customers, and our purchasing division, based on the issued influence by products of nonconformities
- 8.4. A documented approval shall be received for any nonconforming results related to the requirements of a drawing / an order prior shipment, excluding results related to key characteristics, for which non-conformances are not allowed – see paragraph 9. The vendor shall use application forms designated by Tungaloy.
- 8.5. Repairing / re-work, that may impact the quality of the product, require a documented approval from Tungaloy, issued prior to start of operations.
- 8.6. Concessions regarding date of supply shall be coordinated and documented with the buyer in Tungaloy's Purchasing Dept. Approved concession document shall be attached to documents supplied.

**9. Final inspection**

- 9.1. All characteristics shall be inspected when appropriate, either during production or at final inspection, **ensuring full compliance at time of delivery** with all relevant requirements of the purchase order. Sampling plan used for final inspection shall be of C=0 with AQL (Acceptance Quality Level) 2.5% or stricter, as determined in Zero Acceptance Number



<p><b>Chapter 8</b></p> <p><b><u>Appendix Procedure: 843-10</u></b></p> <p>(Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 9 of 11</u></b></p>	<p><b><u>Chapter name:</u></b></p> <p><b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u> Purchasing</b></p> <p><b><u>Appendix name:</u></b></p> <p><b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan Quality Assurance QI-2466</b></p>
---	---	--


Sampling Plans by Nicholas L. Squeglia.

**Non-conformances related to key characteristics are un-acceptable.**

- 9.2. The supplier / subcontractor shall provide a final inspection report with each consignment. The report shall include at least the inspection results of all sampled items regarding key characteristics, the measuring instruments or equipments used, and the signature of the authorized person.
- 9.3. The vendor shall document and maintain the final inspection reports of Tungaloy's items for a period of one year.
- 9.4. The sampled items will be identified and separated inside the shipping consignment.

**10. Packaging:**

- 10.1. **Cleanness:** Items supplied shall be free of any kind of dirt and contamination affecting the product.
- 10.2. **Padding:** Items shall be protected from physical and / or mechanical damage.  
Items susceptible to breakage shall be padded adequately in order to avoid shock and damage during transportation.
- 10.3. **Packing Unit:** Packing unit shall be designed and manufactured to contain the product avoiding shock and damage during transportation and shall withstand the transportation without being damaged.
- 10.4. **Identification:** Both the items and the shipment shall be identified by marking of the supplier / subcontractor, purchase order, and items shall be labeled with item's number, description, production order or batch number (of the manufacturer) and quantity in package.
- 10.5. **Preservation:**
  - 10.5.1. Items susceptible to surface damage and / or corrosion damage shall be

<p><b>Chapter 8</b>  <u><b>Appendix Procedure: 843-10</b></u>          (Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><u><b>Page: 10 of 11</b></u></p>	<p><u><b>Chapter name:</b></u>  <b>Information for External Providers</b></p> <p><u><b>Scope of procedure:</b></u> <b>Purchasing</b></p> <p><u><b>Appendix name:</b></u>  <b>General Quality Requirements for Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan</b>  <b>Quality Assurance</b>  <b>QI-2466</b></p>
--	--	--

protected by adequate coating and / or oiling.

10.5.2. Items susceptible to damage caused by humidity shall be packed with moisture absorbent aids.

**11. Shipping:**

11.1. The following reports that described on purchase order shall be attached to the consignment.

C.O.A. ----- Certificate of Analysis

C.O.C. ----- Certificate of Conformance

C.O.T. ----- Certificate of Test

11.2. Statement of the F.O.D confirmation of prevention shall be attached to the consignment.

11.3. All quality documentation shall be maintained for a period of one year.

**12. Miscellaneous:**

12.1. The supplier / subcontractor shall allow right of access to Tungaloy's customers or to regulatory authorities to all facilities and applicable records involved, when planned in advance.


12.2. The supplier / subcontractor shall transfer these requirements also to his suppliers.

12.3. The supplier / subcontractor shall ensure the necessary competence for personnel performing work on Tungaloy's purchased items.

12.4. The supplier / subcontractor shall maintain appropriate management system for products that deliver to us.

12.5. The supplier / subcontractor shall be requested to satisfy the evaluation criteria on our periodic supplier evaluation.

In the case of found non-conformity, the supplier / subcontractor have

<p><b>Chapter 8</b>  <b><u>Appendix Procedure: 843-10</u></b>          (Based on AS9100 Rev.D)  <b>June 29, 2018</b></p> <p><b><u>Page: 11 of 11</u></b></p>	<p><b><u>Chapter name:</u></b>  <b>Information for External Providers</b></p> <p><b><u>Scope of procedure:</u></b> Purchasing</p> <p><b><u>Appendix name:</u></b>  <b>General Quality Requirements for          Suppliers / Subcontractors</b></p>	 <p><b>Tungaloy Japan          Quality Assurance          QI-2466</b></p>
--	--	--

to do corrective action until has agreed period with us.

**13. Quality Verification of Purchased Products, and Management of  
Non-Conforming items:**

13.1. According to quality policy and quality objectives, Tungaloy Corporation implements diverse inspection activities in order to assess the quality level of the purchased products.

As a result of this activity discrepancies may raise between Tungaloy's results and the results reported by the supplier / subcontractor.

13.1.1. In case that a significant difference is observed between the results of the two parties, Tungaloy shall proceed according to internal procedures related to non-conforming products which includes the option of requesting for an impartial qualified opinion.

13.1.2. In case that Tungaloy's results are confirmed by an impartial third party, the supplier / subcontractor could be requested to bear all the expenses.

13.1.3. On the other hand if supplier / subcontractor results are confirmed, Tungaloy shall bear all expenses.