

OPERATIONS PROCEDURE

RTI EXTRUSIONS LTD – FLOW DOWN OF GENERAL AND QUALITY MANAGEMENT REQUIREMENTS FOR EXTERNAL PROVIDERS OF CRITICAL TO QUALITY PRODUCTS AND SERVICES	PRD 2.6	
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1. Purpose

RTI Extrusions Europe Ltd is one of the businesses forming Howmet Aerospace. The business sits in the Howmet Structure Systems business unit and specialises in the manufacture and supply of hot extruded and cold drawn sections, predominantly but not exclusively, for supply into the aerospace and defence sectors.

RTI Extrusions Europe Ltd has a quality management system accredited to ISO9001:2015 and AS9100 Revision D (Quality Management Systems – Requirements for Aviation, Space and Defense Organizations). AS9100 Revision D requires accredited businesses to be responsible for the conformity of all externally provided products and services. This document defines the minimum general and quality management requirements for critical to quality external providers (suppliers) to RTI Extrusions Europe Ltd.

2. Scope

The requirements defined in this document apply to all critical to quality products and services supplied to RTI Extrusions Europe Ltd by external providers (both third party and inter-company).

Critical to quality products and services are defined as:

- Raw materials used directly in the manufacture of hot extruded and cold drawn sections
- Sub-contract services carried out directly on product manufactured by RTI Extrusions Europe Ltd such as machining processes, heat treatment processes and finishing processes.
- Materials testing services used to verify the conformance of extruded and cold drawn sections produced and sold by RTI Extrusions Europe Ltd
- Critical tooling items used in the direct manufacture of hot extruded and cold drawn sections.

3. Requirements

a. **Exclusions or exceptions**

Requests for exclusions or exceptions to these requirements shall be submitted in writing to RTI Extrusions Europe Ltd and shall be accepted in writing if considered appropriate. Verbal authorisation of deviations to these requirements are not permitted.

b. **Confidentiality**

All information provided by RTI Extrusions Europe Ltd detailing the requirements for externally provided products and services shall be treated as confidential in nature. Such information shall not be shared with any third party without prior written authorisation from RTI Extrusions Europe Ltd.

It may be required for the supplier to sign a non-disclosure agreement prior to commencing a business arrangement with RTI Extrusions Europe Ltd.

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c. Other general requirements

Suppliers shall reference the Howmet supplier website <https://www.howmet.com/bu-supplier-information/> for a listing of applicable internal and external specifications, forms and other pertinent documents.

d. Quality management system accreditation

All suppliers that provide critical to quality products and services to RTI Extrusions Europe Ltd shall be responsible for maintaining a quality management system that is accredited, as a minimum to ISO9001:2015.

In exceptional circumstances to maintain business continuity, RTI Extrusions Europe Ltd reserve the right to use suppliers that are not accredited to ISO9001:2015. In this situation the supplier’s quality management system shall be assessed by audit or other suitable means to ensure the minimum requirements can be met.

e. Customer Approvals

For specific customers or contracts, suppliers shall be required to have specific customer approvals e.g. customer designated raw material suppliers and customer approved test laboratories.

f. Requirements for Products and Services

The requirements for products and services shall be detailed in the RTI Extrusions Europe Ltd purchase order and any referenced standards or specifications. The supplier shall utilise a cross-functional team approach using all applicable functions to review the order requirements to ensure that they can be met in full. Any order requirements that cannot be met in full shall be fed back to RTI Extrusions Europe Ltd in writing. In such cases RTI Extrusions Europe Ltd will consider if a mutually acceptable modification to the requirements can be made or not.

g. Control of Standards and Specifications

The supplier shall deploy a suitable process to review all applicable standards and specifications and to ensure they are current and can be met in full.

h. Competence

Suppliers shall use workers with an appropriate level of competence in the fulfilment of order for product and services. Appropriate records shall be retained to evidence an appropriate level of competence and competence should be reviewed periodically.

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i. Verification and Approval of Products, services, methods, processes, equipment and tooling

The supplier shall implement monitoring and measurement activities at appropriate stages to verify conformance to the requirements of the order. Appropriate records shall be documented and retained to evidence that the checks have been completed per the inspection or control plan and that the product or service conforms to requirements. Document retention periods shall be defined.

A process shall be deployed to control, calibrate and maintain all inspection, measuring and test equipment that has the potential to affect the quality of products and services supplied to RTI Extrusions Europe Ltd. Calibration or verification of monitoring and measurement equipment shall be carried out under suitable environmental conditions. Where measurement equipment is found to be unfit for purpose, the supplier shall determine if the validity of previous measurement results on products or services supplied to RTI Extrusions Europe Ltd has been adversely affected and shall take appropriate action including timely communication to RTI.

j. Special Processes

For processes where the resulting output cannot be verified by subsequent monitoring or measurement, arrangements shall be established including definition of criteria for review and approval of the process, determination and control of process conditions, approval of facilities and equipment, qualification of process workers, use of specified methods and procedures, requirements for retention of process quality records.

Where special processes are out-sourced to sub-suppliers, the supplier shall only use Howmet or Howmet’s customer approved sub-suppliers.

For orders requiring NADCAP approval the supplier shall not perform any work if they are not NADCAP approved. Should a supplier have a change to their NADCAP certification status they shall advise RTI Extrusions Europe Ltd in writing.

k. Preservation of Product

Products supplied to RTI Extrusions Europe Ltd shall be supplied with an appropriate level of packaging to maintain conformity to the order requirements. Specific consideration should be given to preventing foreign object contamination and to the product safety aspects for receiving, unloading and subsequent handling of products by RTI Extrusions Europe Ltd. Preservation requirements also apply to shipping documentation which shall arrive in tact and in a legible condition.

l. Product Safety

Suppliers shall control all applicable processes to assure product safety throughout the product lifecycle.

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m. Release of products and services

The supplier shall deploy a process to ensure that all planned arrangements have been satisfactorily completed and the product or service conforms to requirements prior to release back to RTI

n. Identification and traceability

Product identification and traceability shall be maintained from receipt of material through to supply of finished product or service. Production raw materials shall be identified by hard stamping of the cast reference on at least one end of the bar product supplied. For sub-contract processing of production batches, batch integrity and identification shall be maintained and production batches shall not be mixed.

o. Notification of nonconformance

Suppliers shall not knowingly deliver nonconforming products or services to RTI Extrusions Europe Ltd without prior written consent from RTI via an authorised concession request. Material that deviates from requirements shall be segregated, identified and controlled to prevent inadvertent delivery. When a deviation from requirements becomes known the supplier may request concession consideration. Concession requests shall be submitted to the RTI / Howmet purchasing representative.

p. Quality escapes to RTI Extrusions Europe

The supplier shall provide prompt notification to RTI Extrusions Europe Ltd if nonconforming product or service escapes are identified after shipment has taken place. Where a nonconformance is discovered by RTI Extrusions Europe Ltd the supplier shall be notified of the discrepancy. In such circumstances the supplier shall take immediate containment action to prevent any further defective product or services being delivered. The supplier shall conduct root cause analysis and identify corrective and preventive actions. The findings and outcome of such problem-solving activity shall be shared with RTI Extrusions Europe Ltd. RTI Extrusions Europe Ltd reserves the right to return nonconforming material to the supplier and to recover all incurred costs related to the nonconforming condition.

q. Certification and delivery documentation

Products and services supplied to RTI Extrusions Europe Ltd shall be accompanied by an appropriate Certificate of Conformance (CofC), Certificate of Analysis (CofA), Test Certificate or Inspection Report. The supplier shall provide an appropriate certificate for each shipment of product or services supplied. Failure to provide adequate certification may result in payment being withheld until the deficiency has been resolved.

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Product / service type	Certification required
Production raw materials	Certificate of analysis including the material specification number and revision, cast identification number, RTI Extrusions Europe Ltd purchase order number and test results for all characteristics required by the specification.
Sub-contract heat treatment	Heat treatment records detailing RTI Extrusions Europe Ltd purchase order number, work order number, batch identification number, furnace charts detailing process times and temperatures, furnace loading plan and the test results for any characteristics required by the purchase order.
Other sub-contract processing	Certificate of conformance including RTI Extrusions Europe Ltd purchase order numbers, work order number, batch identification number and confirmation of conformance to requirements of the purchase order.
Product testing	Test certificate detailing the RTI Extrusions Europe purchase order number, work order number, batch identification number, specification number and revision for all test methods carried out, the tolerance limits for each test, the actual results obtained and a comment on the conformance or otherwise of the test results to the specification requirements.
Critical tooling items	Certificate of conformance detailing the RTI Extrusions Europe purchase order number, tooling reference number if applicable, tooling drawing if applicable and the actual dimensions achieved for each dimension detailed on the tooling drawing.

r. Quality and delivery performance

RTI Extrusions Europe Ltd reserves the right to monitor supplier performance. Following periodic supplier performance reviews, suppliers may be expected to address performance metrics that are falling short of expectations and to provide action plans for improvement of supplier metrics such as delivery or quality performance.

s. Key characteristics

A key product or process characteristic is an attribute or output that has a significant influence on the quality of a product. Any such characteristics will be identified in the purchase order requirements. The use of statistical process control methods may be required to ensure compliance and control of key characteristics.

t. Flow down of requirements through the supply chain

Suppliers shall deploy a process to flow down RTI Extrusions Europe Ltd requirements to sub-tier suppliers.

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u. Prevention of counterfeit parts

Suppliers shall deploy a process to ensure the prevention of supply of counterfeit material or material from an unapproved source. The process should include the training and awareness of personnel involved in counterfeit part prevention.

v. Notification of change and change management

Suppliers shall notify RTI Extrusions Europe Ltd of changes affecting the operational proficiency, quality accreditation status or customer approval status of the business. External providers shall deploy a change control process including the authorisation of changes that affect production or service provision by appointed personnel.

w. Right of access

RTI Extrusions Europe Ltd, customers of RTI EE and regulatory authorities reserve the right of access to all applicable areas of the supplier’s facility and to all appropriate records, at any level of the supply chain involved in the order. Such access may be required to conduct inspections and audits to confirm conformance to requirements. Suppliers shall provide equipment, facility and necessary personnel for all on-site verification of order compliance.

x. Employee awareness

The supplier shall ensure that employees and people working on its behalf are aware of:

- their contribution to product or service conformity
- their contribution to product safety
- their contribution to maintaining ethical behaviour and acceptable levels of business conduct