

DOCUMENT TYPE: MANUAL

DOCUMENT TITLE: **SUPPLIER QUALITY MANUAL**

## REVISION

Rev.	Effective Date	Author	Changes from last version
M	09.29.2023	A Cabasés	Adapted to the reduction of QMS scope (no manufacturing or inspection by MTA). Included former internal 30751, 31001 and 31003 work instructions.

## AUTHORIZATIONS

Process owner:	Supply Chain Manager
User representative:	Supply Chain Manager
Management representative:	Engineering & PMO Director

**1. PURPOSE**

This business operating manual for our supply base explains the minimum quality requirements. This manual does not replace individual agreements or specifications, but is the set of minimum requirements upon which other requirements and expectations are based.

**2. SCOPE**

This document applies to all suppliers of M.Torres America, Inc. that supply end product. Compliance to this manual will be referenced in the Terms and Conditions of M.Torres America's Purchase Order P.O.). It is expected that the supplier understands and utilizes this manual.

This document is available in MTA website:

[https://mtorres.es/media/uploads/corporativo/condiciones/10400\\_supplier\\_quality\\_manual.pdf](https://mtorres.es/media/uploads/corporativo/condiciones/10400_supplier_quality_manual.pdf)

It is the responsibility of the supplier to check periodically for any changes that may have occurred. Any questions can be directed to [the proper M.Torres America contact](#).

**3. GENERAL REQUIREMENTS**

Suppliers must implement and maintain processes to ensure the provided processes, products and services comply with the requirements. A quality audit and/or supplier evaluation may be conducted by M.Torres America representatives to assure this compliance.

It is the Supplier's responsibility to ensure that all regulatory requirements and documentation such as inspection reports, certificate of conformance, material certifications, MSDS, and other documentation is provided as required.

Suppliers must notify M.Torres America of changes in product and/or process, changes of suppliers, and changes of manufacturing facility location and obtain M.Torres America approval where required.

**4. DOCUMENT AND DATA CONTROL**

All documents including prints, drawings, manuals, specifications, functional parts received from M.Torres America, are M.Torres America property and must be returned to M.Torres America upon request.

When M.Torres America issues revised prints, specifications or manuals, the obsolete copies must be marked obsolete, destroyed, or returned to the proper M.Torres America contact.

If a supplier is awarded a purchase order connected with Aerospace, a Digital Product Definition (DPD) plan may be required. An audit of the supplier digital control plan systems may be required. If Supplier receives Boeing authority datasets or dataset derivatives from M.Torres America, the Supplier shall comply with Boeing D6-51991 requirements. Suppliers must ensure archived, boxed records or electronic storage media are clearly marked to identify their contents. These records/documents must be stored in a manner to preserve the record/document and prevent environmental degradation or loss. Records maintained in software are to be periodically backed up on media separate from the initial storage location.

Suppliers shall adhere to the minimum record/document retention time of at least seven years from the end of the contract for all product, unless otherwise specified. M.Torres America may require extended retention times. Disposal of records must be done in a manner that protects proprietary/sensitive information.

Suppliers must maintain records of contracts in accordance with the requirements of the business operating system requirements manual or written agreements with M.Torres America.

All designs for tooling used to manufacture products for M.Torres America must be shared with M.Torres America if requested by M.Torres America.

## 5. PURCHASING

Suppliers to M.Torres America are fully responsible for all aspects of controlling the quality and delivery of product and/or services from sub-tier suppliers. Suppliers are also responsible for ensuring that sub-tier suppliers understand and meet M.Torres America requirements and expectations, as well as M.Torres America customer requirements and applicable statutory and regulatory requirements.

Suppliers must also upon request from M.Torres America, provide submissions for material, certificates of compliances or services from sub-tier suppliers. Suppliers will ensure that all certificates and other required documentation are available for product and or services from sub-tier suppliers.

Suppliers must flow down to sub-tier suppliers, and upon request, will arrange for a M.Torres America representative, their customer representative, or regulatory authority access to the applicable areas of all facilities, at any level of the supply chain involved in the order and to all applicable records.

## 6. CONTROL OF SUPPLIED PRODUCT

Suppliers will store and maintain all products supplied in a manner that will prevent damage or loss. Any supplied product that is damaged, lost or otherwise unusable must be documented and reported to M.Torres America in a timely manner.

Engineering, tools and equipment as provided and owned by M.Torres America cannot be used for any other customer, without prior written approval from M.Torres America.

## 7. PROCESS CONTROL

Suppliers must identify and plan production, installation and servicing processes that directly affect the quality and schedule of product supplied on behalf of M.Torres America. Suppliers must ensure that these processes are carried out under controlled conditions. As applicable, suppliers will establish adequate controls for special processes and validate the ability of these processes to achieve planned results. Any requested deviation from the build prints or design/model must be submitted in writing and approved by M.Torres America prior to implementing any process or material changes.

## 8. PRODUCT INSPECTION AND ACCEPTANCE

Product must not be shipped until all the required inspections and tests have been successfully completed, and any nonconformance product is formally dispositioned and the product reworked/repaired as applicable.

Suppliers are required to demonstrate the product conformity by providing inspection documentation. The type of inspection is defined per the product reference in the Purchase Order. Inspection reports shall be submitted to the proper M.Torres America contact.

Product final approval is conditioned to the compliance of the product and the related quality documentation.

## 9. TYPE OF INSPECTION

INSP. TYPE	INSPECTION REQUIREMENTS
A	<u>COMMERCIAL OFF-THE-SHELF COMPONENTS</u> No inspection report required.
B	<u>MTORRES TOOLING SPECIFICATION (MTS)</u> Inspection, test and reporting shall be according to the MTS Quality / Inspection paragraph requirements.
C	<u>MTA STANDARD</u> <b>1- Certificate of Conformity</b> (all cases) <b>2- Inspection report</b> (as applicable) <ul style="list-style-type: none"> <li>• Inspection may be reported on a separate inspection report or on a copy of the drawing.</li> <li>• Inspection records shall include the following, as applicable:               <ul style="list-style-type: none"> <li>- Supplier / Inspector / Date of inspection / Product reference</li> <li>- Nominal and actual values (+/- .015 or less) / An indication of 'Out of Tolerance' conditions</li> <li>- Evidence of inspection/verification of the flag notes.</li> </ul> </li> <li>• All references shall be inspected and dimensionally reported. For batches of 3 or less units: 100% inspection of all parts. For batches of 4 or more units: 3 units + 10% of total units shall be inspected. First and last part shall be included in the inspection batch.</li> </ul> <b>3- Certificates</b> (as applicable), materials, special process (surface treatments, hardness, paint, welding, etc).
D	<u>BOEING TOOLING SPECIFICATIONS</u> <b>1- Certificate of Conformity</b> (all cases) <b>2- Inspection report</b> (as applicable) <ul style="list-style-type: none"> <li>• Inspection may be reported on a separate inspection report or on a copy of the drawing.</li> <li>• Inspection records shall include the following, as applicable:               <ul style="list-style-type: none"> <li>- Supplier / Inspector / Date of inspection / Product reference</li> <li>- Nominal and actual values (+/- .015 or less) / An indication of 'Out of Tolerance' conditions</li> <li>- Evidence of inspection/verification of the flag notes.</li> </ul> </li> <li>• Statistical sampling and sampling plans are not allowed.</li> </ul> <b>3- Certificates</b> (as applicable), materials, special process (surface treatments, hardness, paint, welding, etc).
E	<u>BELL TOOLING SPECIFICATIONS I</u> <b>1- Certificate of Conformity</b> (all cases) <b>2- Inspection report</b> (as applicable) <ul style="list-style-type: none"> <li>• Inspection may be reported on a copy of the drawing.</li> <li>• Inspection records shall include the following, as applicable:               <ul style="list-style-type: none"> <li>- Supplier / Inspector / Date of inspection / Tool number / Acceptance stamp/initial</li> <li>- Nominal and actual values for all critical dimensions (cc). Dimensions without "cc" to be verified and stamped on drawing +/- .015 or less) / An indication of 'Out of Tolerance' conditions</li> <li>- Evidence of inspection/verification of the flag notes.</li> </ul> </li> <li>• Statistical sampling and sampling plans are not allowed.</li> </ul> <b>3- Certificates</b> (as applicable), materials, special process (surface treatments, hardness, paint, welding, etc). Certificates of purchased details. <b>4- Part marking</b> , shall comply with Bell Standard 6500 Tool Identification and PM instructions for part marking. <b>5- Photos</b> of the product shall be provided.
F	<u>BELL TOOLING SPECIFICATIONS II</u> <b>1- Certificate of Conformity</b> (all cases) <b>2- Inspection report</b> (as applicable), 3 <sup>rd</sup> party inspection may be required for tool buy-off <ul style="list-style-type: none"> <li>• Report shall be provided according to the Tooling Inspection Check List (ICL) templates including CMM and Laser Tracker data reports as applicable on csv format.</li> <li>• Inspection records to be reported according to ICL templates and bubble notations. Evidence of inspection/verification of all features, material, processes, flag notes, etc. is required (excluding referenced notes/features).</li> <li>• Statistical sampling and sampling plans are not allowed.</li> </ul> <b>3- Certificates</b> (as applicable), materials, special process (surface treatments, hardness, paint, welding, etc). Certificates of purchased details. <b>4- Part marking</b> , shall comply with Bell Standard 6500 Tool Identification and PM instructions for part marking. <b>5- Photos</b> of the product shall be provided.

## 10. GENERAL GUIDELINES FOR VERIFICATION

In order to check the physical features related to quantity, completeness, appearance and finishing reference as part of the inspection during product realization, the following instructions and guidelines could be applied:

<p><b>1. QUANTITY</b>  <b>✓ EXPECTED:</b>            - Product quantity according to PO / WO            - All components defined in the assembly drawing / spec are included  <b>✗ CHECK FOR:</b>            - Mismatch between expected quantity and actual            - Missing components; nuts, washers...            - Missing fabrication operations: holes, machining, treatments, threadening, engraving...</p>	<p><b>2. MATERIALS</b>  <b>✓ EXPECTED:</b>            - Material received according to drawing / spec  <b>✗ CHECK FOR:</b>            - Mismatch between expected material and received            - Material defects as holes, cracks...            - Material reworks affecting condition; welding filling...            - Check for counterfeit parts.</p>	<p><b>3. WELDING</b>  <b>✓ EXPECTED:</b>            - Welding beams according to drawing / spec            - Proper welding execution  <b>✗ CHECK FOR:</b>            - Missing beams, check all sides            - Wrong welding type, length            - Welding typical defects: porosity, fusion, cracks...            - Lack of cleaning; projections, oxidation...            - Local deformation created by overheating            - Protruding beams when grinding is required (covers)</p>
<p><b>4. HEAT TREATMENT</b>  <b>✓ EXPECTED:</b>            - Thermal treatment applied to material according to drawing / spec  <b>✗ CHECK FOR:</b>            - Material properties (if case); hardness            - Closed profiles with holes for exhausting heated air</p>	<p><b>5. MACHINING</b>  <b>✓ EXPECTED:</b>            - Part machined according to drawing  <b>✗ CHECK FOR:</b>            - Chatter vibratory rugosity            - Surfaces not machined (partially under machining plane)            - Surface steps in the same plane            - Wrong or missing undercut operations (axis and close to sides)            - Part twisting after material machining            - No welding beams removed after machining</p>	<p><b>6. THREADS AND HOLES</b>  <b>✓ EXPECTED:</b>            - Holes and threads according to drawing / spec  <b>✗ CHECK FOR:</b>            - Missing countersink            - Not enough drilling depth            - Not enough reaming depth            - Not enough threadening depth            - Wrong diameters            - Dust, chips, or paint inside, not possible to thread bolts            - Missing thread inserts in aluminum, thread inserts not fixed</p>
<p><b>7. SURFACE TREATMENT</b>  <b>✓ EXPECTED:</b>            - Surface treatment according to drawing / spec            - Right appearance, color, and protection  <b>✗ CHECK FOR:</b>            - Not uniform application, areas without treatment, areas with accumulation            - Spots, dust or color discontinuity            - Not applied when it is not required            - Part has been previously cleaned, not applied on rusted surfaces</p>	<p><b>8. PAINTING</b>  <b>✓ EXPECTED:</b>            - Surfaces painted when it is specified            - Type, color, and coat thickness according to drawing / spec  <b>✗ CHECK FOR:</b>            - Wrong color, brightness            - Inconstant coating, no areas with poor application or other with accumulation            - Wrong paint hardness            - Wrong painted areas; threads, holes, fine machined surfaces...            - Lack of adherence, primer coating            - Surfaces not cleaned (rust, oil) before painting</p>	<p><b>9. FINISHING</b>  <b>✓ EXPECTED:</b>            - Product clean, protected, and safe for manipulation  <b>✗ CHECK FOR:</b>            - Parts not deburred, cutting edges            - Lack of cleaning; chips, dust, rust, machining coolant, steel balls or sand...            - Dents and scratches on surfaces            - No material reworks on surface (steps)            - Writing notations on the part</p>
<p><b>10. ELECTRICAL</b>  <b>✓ EXPECTED:</b>            - Wiring and routing according to standard practices            - Electrical assembly according to electrical schemes / specs  <b>✗ CHECK FOR:</b>            - Missing, wrong labelling            - Wrong type or size of wires            - Wrong wire connectors, loosen            - Confusing wiring, routing, layout            - Missing electrical cabinets safety labeling</p>	<p><b>11. COMPLETENESS</b>  <b>✓ EXPECTED:</b>            - Product fabricated and ready according to drawings / spec  <b>✗ CHECK FOR:</b>            - Missing id, labelling, lifting points for assembly operations            - Loosed joint elements; torque, bolts, nuts, tightening of pins and bushes (not enough pressure)            - Missing assembly operations; Loctite, paint mark, lubrication            - Protruding elements (pins, bolts, plastic caps) on control surfaces            - Wrong parts fitting</p>	<p><b>12. FOD</b>  <b>✓ EXPECTED:</b>            - Absence of foreign elements  <b>✗ CHECK FOR:</b>            - Remains of temporary labelling; tape, stickers...            - Missing objects in the part; plastic flanges, tools, office material, missing components as washers, bolts...            - Cracking paint            - Oil, excessive grease            - Prohibited materials for carbon fiber as silicone</p>

## 11. QUALIFICATION OF QC INSPECTION PERSONNEL

Personnel performing inspection to verify conformance to specific requirements, shall meet the requirements for qualification as described:

- **LASER TRACKER OPERATOR**

**16 h training** including knowledge on: Digital Product Definition // CMS procedure // CMS verification // Geometry concepts // Laser Tracker technology. Measurement capability // Equipment startup // Basic operations // Coordinated system building. Best-fit. Reference points. Transformations. Drift points // Measurement conditions. Scale, materials and temperature effects // Measurement accessories. Reflectors, offsets and adapters // Software. PAS. Validation. Operations // 3D inspection // Geometry assembly // Reporting // Calibration // Periodical Maintenance // USMN // GD&T, and **100 h of supervised experience** applying CMS procedure.

- **CMM OPERATOR**

**32 h training** including knowledge on: Digital Product Definition // CMS procedure // CMS verification // Geometry concepts // CMM technology. Measurement capability // Equipment startup // Basic operations // Coordinated system building. Bestfit. Transformations // Measurement conditions. Scale, materials and temperature effects // Software. PAS. Validation. Operations // 3D inspection // Geometry assembly // Reporting // Periodical Maintenance // Calibration // GD&T, and **100 h of supervised experience** applying CMS procedure.

- **QUALITY CONTROL INSPECTOR**

Two years of related experience in equivalent inspection or testing activities, or High school graduation (or GED) plus 6 months of related experience in equivalent inspection or testing activities, or Completion of college level work leading to an associate`s degree in a related discipline plus 3 months of related experience in equivalent inspection or testing activities.

## 12. CONTROL OF MEASURING AND TEST EQUIPMENT

Suppliers of M.Torres America must retain calibration records for all inspection and test equipment used to make pass/fail decisions on products manufactured for M.Torres America. Suppliers shall provide records of the equipment used for the inspections upon request.

## 13. PREVENTION OF COUNTERFEIT PARTS

Suppliers shall plan, implement, and control processes for the prevention of counterfeit or suspect counterfeit part use and their inclusion in product(s) produced for M.Torres America. Suppliers shall quarantine and notify M.Torres America immediately of suspect or detected counterfeit parts.

## 14. HANDLING, STORAGE, PACKAGING, PRESERVATION AND DELIVERY

The Supplier is required to handle, store, package, and ship materials in a manner to ensure that it meets all functional and appearance specifications [upon arrival at M.Torres America`s Customer facility](#). Suppliers will ensure that all products are identified according to print and/or purchase order requirements and specifications.

## 15. HANDLING OF MASTER TOOLS

All master tools, interface control tools, and/or other primary control media (MDS, MDI, and MCD) once used to establish production and/or inspection tooling configuration, will not be altered or repaired without written permission (in every instance) from customer representative.

Category I Master tools are precision instruments that must be maintained to assure engineering tolerance in production parts and/or assemblies to meet the requirements of interchangeability. The following instructions apply to all Boeing master tools:

- A. No master tools are to be used for direct manufacture of production parts. Strict adherence to this rule is mandatory.
- B. Proper handling of master tooling will be assured through surveillance of customer and/or MTA quality control. Large master tools will not be lifted from points other than the lifting lugs, hoist rings, lift holes, or other designed lift points.

- C. Special care must be taken to provide warehousing and storage that will adequately prevent distortion and corrosion of master tools. When not in use, master tools will be boxed and stored in buildings that will prevent atmospheric or other physical damage to tools and containers. Under no circumstances is outside storage of master tools permitted.
- D. Damage to program master tools must be reported promptly to the customer quality representative followed by written notification to the procurement agent of the applicable customer division. Damaged master tools are not to be used until dispositioned and approved by the customer engineering representative.

Master Tools will be prepared for storage or shipment as follows:

- A. All loose steel parts, including chained loose parts, such as bushings, pins, and detached assembly components, must be cleaned and corrosion preventative compound applied.
- B. All machined and gaging steel surfaces must be cleaned and corrosion preventative compound applied. Machined or gaging surfaces will be protected from any contact with wood container members by using plastic barrier material. The plastic film side of the barrier material will always be in contact with the tool.

Shipment of program master tools to or from various locations will require written request through the customer's procurement agent and will not be performed until written authorization is received from the customer. For boxing:

- A. Boxes shall be provided for the storage and shipment of all program master tools, and shall be included in the tool design and parts list. It is important to make boxes strong, yet light, thereby offering maximum protection while keeping shipping and handling costs to a minimum. Master models having plaster construction require provisions for ventilation in their storage and shipping box.
- B. Master tools, when boxed, must be shored securely so that there will be no movement of the tool regardless of the position in which the box may be placed. Bagged loose parts must be secured to prevent free movement and possible damage. All bolts, washers, wing nuts, and other attaching devices must be firmly secured to prevent loosening.

For opening and closing of master tool boxes the following guidelines must be followed:

- A. All master tools, upon receipt from tool storage or outplant shipment, will be opened or closed in the presence of a customer Quality Assurance representative. The inspector will witness the opening or closing and conduct a visual inspection for general condition of the tool. All master tools will be inspected for shoring, preservation, and stowing of loose parts prior to closure for storage or shipment.
- B. Each master tool will be accompanied by a Gage Storage Record, that will be kept inside a container or plastic envelope inside the gage box or weatherproof box attached to the gage box. It will be the responsibility of the customer Quality Assurance representative to peg stamp each entry and enter the date on the form as applicable following each opening and prior to each closure of master tool boxes.
- C. At each master tool box closure, after the lid has been secured, the lid will be wired and sealed at two opposite sides or ends.

**NOTE:** Within Boeing's CATEGORY I Master Tools can be found: Program master tools, including interface control tools, master control tools, master models, master gages, secondary gages, master templates, master control drawings (MCD's) and Boeing approved authority engineering datasets.

### 13. CONTROL OF NON-CONFORMING MATERIAL AND PRODUCT

Suppliers must contact M.Torres America immediately if it is discovered that nonconforming product has been produced or suspect product [may have been shipped to M.Torres America's Customer](#).

M.Torres America requires that suppliers manage nonconforming product under their own nonconformance system.

In the event of a nonconforming product the disposition for use as is or rework must be requested to M.Torres America, and authorized by M.Torres America.

Shipment is authorized after a formal disposition has been provided and the product reworked as applicable.

Supplier is responsible for all cost associated with rework, replacement, scrap, and shipping for all non-conforming product determined to be the fault of the supplier.

**14. CORRECTIVE ACTIONS**

When a request for a corrective action report is received from M.Torres America, the response must be documented on the Suppliers corrective action form or M.Torres America can provide their CAR form for the supplier to use. Immediate response detailing the short term containment action(s), must be sent to M.Torres America.

Special attention must be given to identification of the root cause and corrective action to prevent recurrence. The root cause must show systemic corrective actions.

All responses must be [reviewed and approved by M.Torres America](#).

**15. COMPETENCE AND AWARENESS**

Supplier shall ensure that the persons within the external provider and any sub-tiers are competent and qualified for the processes and are aware of their contribution to the product safety, conformity and the importance of their ethical behavior.

**16. SUPPLIER PERFORMANCE**

Supplier performance will be rated based on "On Time Delivery" and "Quality Delivery".

M.Torres America will have available, upon request, the periodical Supplier Performance Ratings report.

Suppliers scoring lower than the established threshold may be required for corrective actions and noted on the Approved Supplier List which may prevent sourcing of new business and potentially cause premature cancellation of any remaining current purchase order, or disqualification of that supplier.

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