Mobile Thermal Solutions

Bus Climate Control

Mobile Climate Control

GLOBAL SUPPLIER MANUAL

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1. Introduction

Mobile thermal Solutions is a member of VBG Group, an international industrial group. VBG Group was founded to create a safer society, and this is still what drives the company today. Mobile Thermal Solutions (MTS) is the parent company to MCC- Mobile Climate Control and BCC – Bus Climate Control. *Reference VBG group Website:* Home | VBG Group

MCC
MCC is the global HVAC-R solution supplier of choice for off-road and utility vehicles. MCC stands for premium mobile HVAC-R solutions, providing customer integrated full-service engineering, vertically integrated manufacturing, and aftersales support. MCC is a responsible partner offering premium solutions with economy, environment, and society in mind. We combine the latest technology for competitive, safe, environmentally friendly, and sustainable solutions.

BCC
Bus Climate Control develops durable and validated HCAC-R systems for city, intercity, shuttle, school and touring buses, making the most extreme hot or cold weather unnoticeable.

MTS strives to accomplish long-term and stable relationships with its suppliers, with continuing and stable partnerships that we can develop together. **The manual is to be seen as a complement to MTS's General Purchasing Terms and Conditions. In the event of any inconsistency between this manual, the specific contract or MTS purchase order terms and conditions, the contract or purchase order will control.** To ensure a good understanding of our demands and way of working, it is necessary for our suppliers to follow MTS guidelines.

It should be noted that any exceptions shall be reviewed with an MTS representative.

2. Sustainability

MTS continuously works for an environmentally improved and safer society in all parts of the world. We are currently planning and setting our overall Sustainability targets and goals for the future together with the VBG Group and we are aiming for areas such as:
- Resource-efficient transport solutions for reduced carbon emissions
- Increased personnel safety
- Increased proportion of renewable energy
- Reduced greenhouse gas emissions.

Suppliers are expected to proactively work to support current and future MTS environmental and sustainability reporting.

Reference MCC Sustainability; Environment | MCC Mobile Climate Control (mcc-hvac.com)
Reference BCC Sustainability; Environment | BCC Bus Climate Control (bcc-hvac.com)

3. Code of Conduct

All providers of goods and/or services to MTS shall be aware of the formal Code of Conduct that is implemented and adapted through all divisions of the VBG Group. The VBG Group encourages all our suppliers, consultants, and other business partners within its sphere of influence to adapt to these principles. As a provider or potential provider of goods and/or services to MTS we expect you to adhere to and/or have the equivalent set of guidelines within your

company for Business Principles, Environmental Principles, Human Rights, Ethical consideration and Workplace Practices. *Reference VBG Code of Conduct*: Read our Code of Conduct (pdf)

4. Purpose

The purpose of this Manual is to communicate MTS requirements, expectations, and customer specific requirements to our Supply base. To develop a world-class supply chain that provides the best in logistics, quality, and price to all MTS companies globally.

5. Supplier Requirements

Supplier requirements are defined in the table of contents. This manual contains detailed requirements and expectations for our suppliers. Proven capability is a prerequisite for doing business with MTS. Supplier conformance to these requirements may be by way of MTS assessment/audit or by way of third-party audit. The information contained in this document is MTS proprietary and confidential. It shall not be disclosed to any third parties without written consent from MTS.

6. Distributor Requirements

Distributors shall have a system in place to ensure all parts origin, traceability to manufacturing location, and required specifications. The distributor will be responsible for proper handling and storage of parts to prevent damage and product deterioration. Packaging shall provide adequate protection for safe delivery. The distributer is responsible for co-ordinating and communicating all MTS Quality and Delivery requirements with the original manufacturer. The contents of this manual shall apply to the distributer.

7. Supplier audits

Supplier audits consist of a self-assessment audit and/or Onsite Audits. The MTS management teams will determine the type and scope of the audit(s) based on a number of supplier factors and risks. Supplier audits are used to assess the supplier's capability in accordance with MTS's Supplier audit checklist. Self-assessment audits will give MTS some indication of the supplier capabilities, whereas the Onsite audit will provide a detailed understanding of the supplier Business and Management systems that are in place. Supplier audits can be performed for New, Current and High-Risk Suppliers (i.e Poor Quality/Delivery/Communications)

8. Change Management

Suppliers are required to notify MTS a **minimum of 60 days** in advance of any change that may impact the supplied product. Changes include product, process, materials, tooling/equipment, sub-supplier, and manufacturing location. Changes require the submission of a product/process change request (PPCR) or Deviation Request (temporary change) to MTS. Where requested by MTS, a PPAP submission will follow. A supplier shall never request a deviation to bypass the PPAP system.

9. Management responsibility

9.1 Business plan
The Supplier shall have a clear business vision and a strategy to guide the future development of the company. This plan shall be reflected in respective plans of business units, functions or equal. The plan shall include objectives, targets, actions, responsibilities, and schedules. There shall be objective evidence of execution and effectiveness of the business plan.

9.2 Supplier Performance Monitoring
The supplier shall regularly monitor its performance indicators to ensure it meets it company strategic objectives and MTS requirements. Management shall review these indicators on a regular basis and use the data to initiate corrective and improvement actions. Parts shipped to MTS are required to maintain zero defects (0 PPM), 100% on time delivery and be competitively priced. MTS monitors suppliers monthly to ensure negative trends are not observed. Where negative trend (i.e 3 months or more) in supplier performance is observed, MTS may request that the supplier participate in a low performing supplier action plan. If the supplier's performance continues to not meet the expectations of MTS, the supplier may be placed on new business hold or removed from the approved supplier list.

Parts Per Million – (PPM)
PPM (parts per million) is utilized to monitor nonconforming material performance.
PPM data is used by MTS Quality and Purchasing Representatives to assess the performance of the Supplier Quality. PPM is calculated using the following formula: (Total Nonconforming Quantity/Total Receipt Quantity) *1,000,000

Delivery Requirements - (OTD)
The Supplier is required to meet 100% on-time delivery, including quantity and timing requirement. Supplier OTD is measure with respect to Early/Late Window compared to the required receiving date. Failure to meet Delivery requirements may result in the Supplier being responsible for any premium freight as well as downtime incurred by MTS.

Additional Supplier Performance indicators may be utilized in the evaluation of suppliers, i.e Warranty cost, Response time, timely PPAP submission and Engineering support.

9.3 Financial stability
The Supplier shall be able to demonstrate their financial history during the last 3 years. Supplier has to be able to finance its current operations as well as any future growth (i.e. Equipment, Processes and Resources)

9.4 Quality policy
The Supplier shall have an up-to-date quality policy. Management shall ensure that it is appropriately communicated, understood, and implemented throughout the whole organization.

9.5 Environmental policy
The Supplier shall have an up-to-date environmental policy. It shall include management commitment to environmental protection, prevention of pollution and compliance with local environmental legislation. Management shall ensure that it is appropriately communicated, understood, and implemented throughout the whole organization.

9.6 Management reviews

Management shall at regular intervals conduct reviews of the quality, environmental management systems to ensure compliance to the ISO standard(s) and/or equivalent company requirements, in order to mitigate operational risk and promote continuous improvement. Management reviews shall apply to MTS original equipment manufactures and critical Distributers.

9.7 Resources

Management shall ensure availability of adequate resources. Employees shall have the required education, training and competencies for their position and tasks. All employees shall be subject to regular appraisals of competence by the supplier to identify necessary training needs. Competence development plans shall promote the implementation of company's strategic objectives.

10. Quality management

10.1 Quality management system

The Supplier shall have a documented quality management system. The QMS should provide a detailed overview of the supplier processes and documentation. It shall be established in compliance with the requirements of the latest edition ISO9001, ISO/ IATF 16949 standards and/or other internationally recognized standard applicable to its business. MTS recommends that the supplier's location be registered by a third-party registrar. Non-compliance to formal 3rd party registration may impact future business with MTS.

10.2 Quality records

The Supplier shall define internal and external quality records. Responsibilities to collect, store, maintain and delete such records must be explicitly defined. These records shall consist of documents related to quality/environmental/risk management system reviews and audits as well as material and product tests, and process control. Quality records shall be readily available for MTS's review and inspection**.** Quality records are the documented evidence that the supplier's processes are executed according to their QMS documentation. The supplier will ensure that it applies a similar strategy with its suppliers.

10.3 Quality plan

The Supplier shall conduct product, project, or process specific quality assurance activities according to separately defined process and plan. Quality plans of MTS specific parts shall be subject to mutual approval**.**

10.4 Internal quality audits

The Supplier shall conduct internal quality audits using qualified auditors according to set process/procedures. Internal quality audits shall be planned and executed according to the plans. Audit results shall be subject to regular reviews and respective corrective actions shall be taken without delay. These corrective actions' effectiveness shall be verified.

10.5 Document control

The Supplier shall have a document control system to create, check, approve, release, distribute, revised and obsolete management system related documentation and data throughout the whole organization. There shall be evidence that all current issues of pertinent documentation such as drawings, specifications, procedures, etc. are available at all the appropriate locations where operations are critical to the quality of the product. A procedure shall exist to review, evaluate,

and implement changes to pertinent documents. Anticipated changes to processes or products supplied to the customer shall be communicated to the customer before implementation.

10.6 PPAP implementation
MTS Suppliers shall be familiar with the PPAP (Production Part Approval Process) procedures (Ref AIAG Standard). The supplier should apply the AIAG automotive Core tools as listed below:

APQP – Advanced Product Quality Planning
PPAP – Production Part Approval Process
FMEA – Failure Modes Effects Analysis
SPC – Statistical Process Control (as requested)
MSA – Measurement Systems Analysis (as requested)
The above Manuals can be obtained at AIAG.org - Automotive Industry Action Group

11 Environmental management

11.1 Environmental management system
The Supplier shall have a documented environmental management system. The EMS should provide a detailed overview of the supplier's processes and documentation. It shall establish compliance with the requirements of the latest edition ISO14001 and/or other internationally recognized standard applicable to its business. MTS recommends that the supplier's location be registered by a third-party registrar. Non-compliance to a formal 3rd party registration may impact future business with MTS.

11.2 Environmental Consideration in Design
The Supplier shall consider environmental inputs during all phases of its product realization process. The product realization process shall utilize environmental tools and methods. All reasonable efforts shall be made to eliminate or reduce hazardous contents from the product and its manufacturing process, Use of recyclable materials to promote the Circular Economy (CE), materials that promote Zero Green House Gas (GHG) emissions shall be preferred to ensure the environmental impact on the product through its whole lifecycle is minimized at End of Life (EOL).

11.3 Material content
The Supplier shall have a method to record material content of its products. This documentation shall be available to MTS upon request. The supplier shall utilize materials and sub-suppliers that minimize Green House Gas (GHG) emissions as result of material selection, processing, and transport. Suppliers/Sub-suppliers shall target a 50% reduction in GHG emissions by year 2030.

11.4 Legal compliance and other requirements
The Supplier shall continuously monitor environmental requirements associated with Country, Local Regional (legislation/regulations) and the customer environmental requirements as it applies to its business. It is the supplier's responsibility to ensure MTS's purchase orders are reviewed and understood for all Environmental requirements prior to P.O acceptance.

11.5 Environmental performance
The Supplier shall identify environmental impacts associated with its activities. Continuous improvement programs shall be implemented to minimize environmental impact including, (but not limited to) emissions to air, water and soil. Such programs effectiveness shall be subject to regular reviews. The Supplier shall evaluate its sub suppliers' environmental performance in accordance with MTS supplier requirements as defined in section 3.

12 Risk Management

12.1 Business Contingency planning
The Supplier shall implement a system to identify, analyze, control, monitor and minimize business risks. The system shall produce a Business Contingency plan that guarantees business operation and continuity. The plan shall include strategy, financials, operations, supply, logistics, technology, quality, location, natural hazards and (trade) political risks**.**

12.2 Emergency procedures
The Supplier shall have appropriate emergency procedures including evacuation and rescue plans. The Supplier shall take necessary steps to prevent, to detect and to react to emergency incidents. There shall be competent emergency response teams to deal with emergencies. Regular evacuation, rescue and emergency response drills shall be organized.

12.3 Occupational health and safety
The Supplier shall implement occupational safety precautions throughout the whole organization for dealing with hazardous substances, noise, and equipment. Safety instructions and appropriate safety devices shall be in use. The Supplier shall comply with all relevant national and international laws and regulations related to occupational safety. The occupational safety management shall follow OHSAS (ISO) 18001 Occupational Health and Safety Standard and/or equivalent system. Safety Data Sheets (SDS) containing information about the potential health effects of chemical exposure, safe working practices and shall be available near the point of use.

12.4 Security
The Supplier shall implement security procedures covering buildings, employees, documents, IT systems and movement of products. The effectiveness of these procedures shall be subject to a regular review. The Supplier shall take appropriate measures to prevent unauthorized access to its IT systems and potential breach of confidential data. The measures taken shall preferably follow the ISO27001 and/or equivalent. Access to areas containing MTS confidential information or products shall be restricted to relevant authorized personnel only.

12.5 Document and data safety
The Supplier shall take actions to prevent breach or loss of documentation and data. Necessary precautions shall be implemented in form of fireproof cabinets, virus scans, up-to-date electronic back-ups etc. Electronic data shall be subject to back-ups stored in a separate building. There shall be implemented an effective document and data recovery plan.

12.6 Confidentiality
The Supplier shall have a confidentiality policy with all its employees including temporary employees and resident subcontractors. Employees shall be made aware of the meaning of such agreements in practice. The Supplier shall comply with all relevant national and international laws and regulations related to confidentiality.

13 Customer Requirements Review

13.1 Customer Requirements
The Supplier shall have a formal review system to convert customer requirements into Supplier's internal requirements. The requirements referred to may be: requirements specifically documented in MTS specification, purchase order, agreement(s), request for quotation or other documentation; requirements usually and typically associated to products in question;

requirements of applicable laws and regulations; and Supplier's internal requirements related to design standards and other procedures.

13.2 Purchase document review
The Supplier shall adequately review all received purchase documentation to ensure its ability to meet all requirements prior to the acceptance of a purchase order.

13.3 Contract changes
Contractual changes like engineering changes, renegotiated agreements, purchase order changes and other changes related to customer requirements shall be managed using the contract review system.

13.4 Business contacts
The supplier shall nominate contact person(s) to manage the relationship between MTS and the Supplier. An escalation procedure shall be defined to manage issues, which cannot be solved between MTS Vendor Manager and the Supplier's nominated contact person(s).
The contact persons shall have fluent skills in Native language and English**.**

13.5 Production Part Approval Process – PPAP
The MTS Part Approval Process (PPAP) defines requirements for production part approval. The purpose of PPAP is to determine if all customer Engineering Design Record and specification requirements are properly understood by the Suppliers and that the supplier manufacturing process has the capability to produce product consistently to meet these requirements during an actual production run at the specified run rate.

When is a PPAP required?
o A new part or product
o Correction of a discrepancy
o Product modified by an engineering change to design records, specification, or materials
o Production from new or modified tool, refurbishment, or rearrangement of existing tool
o Production line move to new location
o Change of sub-contractor / sub-supplier
o Tooling more than one year inactive, or test method change

PPAP Level Requirements

PPAP Level	PPAP Level Submission Documents
Level 1	• Warrant (PSW) • 1 piece – Sample/Dimensional • Material Certification • Design Records (drawings) • Environmental Compliance Submit with First Production
Level 2	• Warrant (PSW) • 3 piece- Sample, Dimensional, Drawing Notes • Material Certification • Design Records (drawings) • Engineering Change (Deviation /ECN) • Environmental Compliance Submit with First Production
Level 3	• Warrant (PSW)

	• 3 piece – Dimensional • Design Records (drawings) • Material Certification • PPAP Samples – First production order • Drawing Notes compliance • Engineering Change (Deviations / ECN's) • Design Failure Modes effects Analysis (DFMEA) • Process Flow Diagram (PFD) • Process Failure Modes Effects Analysis (PFMEA) • Initial Process Capability • Measurement System Analysis (MSA) • Process Control Plan • Appearance Approval Report (AAR) • Master Sample • Checking Aids (Fixture, gage, template, etc) • Customer Specific Requirements • Tooling Photo Documentation • Environmental Compliance Submit with First Production Run
Level 4	• Warrant (PSW) • Material Certification or Certificate of Compliance • Other Customer defined requirements • Environmental Compliance Submit with First Production Run
Level 5	Warrant with product sample and completed supporting data available for review at supplier's manufacturing location; Environmental Compliance

Reference latest revision AIAG standard. AIAG.org - Automotive Industry Action Group

Standard PPAP Submission Requirements applied to MTS Purchase Orders

Level 2	Default PPAP level for supplied components; Heat Exchangers, Fittings, Hoses, Blowers, Fans, Motors, compressors, Mechanical, Electrical Parts, plastic components, Valves, Metal Fabrications, Other-Defined by MTS
Level 4	Default PPAP level for Critical Hardware; Must have manufacture Certificate of Compliance if parts are for military application; Other-Defined by MTS
C of C and/or PSW	Non-critical Hardware, Sealants, Raw Materials, Standard Catalogue part from Distributor; Other-Defined by MTS Distributor; Previously approved and more than 2 years not purchased; Environmental Compliance

The standard PPAP submission above should be seen as a guide for PPAP submissions by the supplier. MTS can request a change to the submission requirements where needed.

PPAP Status

Approved – An Approved PPAP is when the PPAP has been reviewed by the MTS Quality Representative and it has been determined that the PPAP has met all the requirements that have been requested of the supplier.

Conditional Approved – A Conditional Approved PPAP is when the PPAP has been reviewed by an MTS Quality Representative and it has been determined that the PPAP submission has met all the requirements to allow the Supplier to ship product and use in production Parts. However, there are still additional actions that are needed of the Supplier to become a Fully

Approved PPAP. **Conditional PPAPs shall be approved within 90 days of initial approval.**

Not Approved – When a PPAP is Not Approved that means the PPAP either has not been reviewed, submitted, or it has been rejected by MTS Quality Representative. The Supplier is not authorized to ship product for the use in MTS production. Where a supplier PPAP is **rejected**, it is the responsibility of the Supplier to submit a corrective action to MTS and work with the Quality and Sourcing team to resolve the issue immediately.

14. Production process management

14.1 Process flow

The supplier shall use a production process implemented according to an optimized plan. The process flow shall ensure effective operation and control of the process. If any part of the process is subcontracted, this shall be indicated in the process flow and the respective subcontractor shall be selected according to the Supplier's supplier qualification process; and managed as defined under "Sub-supplier and subcontractor control".

14.2 Process and material qualification

The supplier's process and materials including related changes shall be qualified and approved according to set procedures and / or industry standards. The records of process and material qualification shall be available to MTS. All changes shall be communicated to MTS prior to their implementation**.**

14.3 Documented instructions

The Supplier shall have documented instructions outlining specific product and process characteristics to be monitored throughout production process. Criteria of workmanship, drawings or other illustrations, samples, videos/pictures, and Work Instructions shall be available for all critical process steps at the location of the operation**.**

14.4 Production equipment

The Supplier's process equipment shall be qualified for the purpose/ intent and reports of this qualification should be kept. The production equipment shall be under preventive maintenance (PM) according to a specific PM plan. When applicable (i.e used in a production process) equipment software versions shall be controlled**.**

14.5 Tool management and control

The supplier shall establish a system for tooling management including appropriate procedures for inspecting, maintenance and repair, storage, setup, tooling modifications fixtures and jigs. Quality records shall be created and maintained. The procedure shall also cover customer owned tools, fixtures, and jigs.

14.6 Production process control

The supplier shall define the production process controls at appropriate stages of the process to keep the process under control. Respective controls shall be established using documented procedures, Process flow, control plans, detailed work instruction including assembly, processing, inspection and/or testing with results recorded and save as records. Process data shall be recorded and maintained (i.e results of inspections, test, training) The Supplier shall record all relevant inspections to establish product conformance to specified requirements. Process flows and control plans for outsourced processes shall be made available and kept on record with the supplier.

14.7 Statistical techniques
Whenever applicable the Supplier shall use statistical methods and techniques to analyze process data for continuous improvement. There shall be documented procedures for identifying and establishing suitable statistical methods. These methods shall be actively utilized to monitor process and/or product characteristics to reduce variation.

14.8 Rework procedure
The supplier shall define allowable rework and appropriate procedures for conducting it. Reworked products shall be re-inspected in accordance with appropriate documented procedures with assurance that it conforms to specification. Supplier should document measures to avoid reoccurrence. Records of rework need to be retained as evidence.

14.9 Failure analysis
The supplier shall conduct a formal failure analysis (i.e. 8D, 5 Why) on defective materials and products as well as on process failures according to set procedures. The results of these analyses shall be available as a quality record.

14.10 Release for delivery
Prior to releasing products for delivery, the Supplier shall assure that the products conform to MTS requirements. MTS considers release of the shipment as evidence that the product has satisfied all required inspections. The respective records shall be available for MTS to review.

14.11 Inspection and test equipment
The Supplier shall have a documented procedure for the calibration and maintenance of inspection, measurement, and test equipment. Records indicating calibration frequency, obtained values, equipment type, frequency of checks, checking method and acceptance criteria shall exist. Where test hardware is used (i.e. jigs, fixtures, templates, patterns, etc.) checks shall be made to prove their capability of verifying the acceptability of product prior to use.

14.12 Inspection and test records
The Supplier shall maintain inspection and test records as evidence of appropriate testing and inspection according to applicable procedures with acceptable results. The inspection and test records shall be regularly reviewed, and respective corrective and preventive actions shall be taken.

14.13 Control of non-conforming products
The Supplier shall have a documented process for ensuring that all products are positively identified to indicate their conformance or non-conformance throughout all process steps. There shall be timely feedback to MTS regarding quality related problems found internally or at other customers that may affect MTS. Supplier parts found to be nonconforming will require the following actions:

Responding to Nonconformance's
☐ All requests for Supplier RGA must be provided within a 24 hr to MTS Suppler Quality and/or purchasing.

☐ Initial 8D response for Non-conforming Parts in form of 3D report must be provided within 48 hrs (Emergency Actions/Containment) and final 8D response with corrective actions must be provided within 10 business days.

☐ Supplier's 8D Team should utilize a disciplined approach to problem solving, including the use of Quality tools (i.e Pareto's, fishbone diagrams, 5 Why) to determine root cause.

☐ Provide" Containment Marking" system to certify conforming product for the next 3 shipments (minimum). Additional guidance may be provided by your MTS Quality representative.

Processing Nonconforming Material

☐ Material disposition; Inspection/Sorting/ Rework /Repair will be documented on the Nonconforming Report and will require guidance/support from the supplier. Disposed material will be processed in the following order: 1. By Supplier, 2. By 3rd party and 3. By MTS.

☐ A Line Down Condition will require an immediate response by the supplier and may be subject to financial penalties where MTS deliveries are impacted.

14.14 Supplier Corrective Action
In addition to Quality concerns (per 14.13), Supplier 8Ds may also be issued for reasons including Delivery, Packaging, Slow/ No responsiveness, Line down condition, Non-compliance to ISO standards, Non-compliance to the MTS manual and negative Warranty trends. Initial 8D response must be provided within 48 hrs (Emergency Actions/Containment), with final 8D response with corrective actions within 10 business days. Supplier's 8D Team should utilize a disciplined approach to problem solving.

15 Training

The supplier shall only utilize competent, appropriately trained personnel. The Supplier shall create and implement training and development plans. The Supplier shall retain documentation relating to training.

16 Spare Part

The Supplier shall be able to support spare parts deliveries directly to MTS service centers in small quantities on short lead-times without a cost penalty. The Supplier shall have a system to assure spare parts availability to MTS at reasonable cost throughout the MTS spare part liability period of 15 years.

17 Product Development

17.1 Product development process

The Supplier shall have a product development process to ensure effective planning, execution, and control of the product throughout its whole lifecycle. The product development process shall promote cross-functional alignment.

17.2 Requirements
The development process shall be based on the requirements identified during contract review.

17.3 Project planning and management
The supplier shall have project planning practices in place. Projects shall be managed according to planned targets in terms of resourcing, scheduling, product quality and costs.

17.4 Design reviews

The Supplier shall perform formal design reviews to systematically analyze the progress of the product development activities and their output at certain milestones. Results of the reviews and related corrective action plans should be stored as a quality record.

17.5 Product verification, qualification, and validation

The Supplier shall verify, qualify, and validate products it develops according to a set process. The data created shall be available as a quality record. MTS may request a prototype for final verification and/or validation activities.

17.6 Engineering change

The Supplier shall establish a process to reliably manage, track and document changes in requirements and designs. The process shall include practices for documentation and version management. The Supplier shall inform MTS of all engineering changes made after the design has been released for delivery to MTS. Change histories shall be available as quality records. Reference section 8 Change Mgmt. and section 5.5 PPAP -Production Part Approval Process.

18 Purchasing

18.1 Purchasing organization.

The Supplier's purchasing organization shall be aligned to support both continuous operations and product development to assure availability of cost, quality, and lead time optimized materials supply.

18.2 Supplier qualification process

The Supplier shall select and approve its sub-suppliers based on objective factors such as quality, reliability, technical capability, delivery, and price without preference for personal reasons. A documented process or procedure shall be used. The criteria used shall not be in contradiction with MTS Supplier Requirements. It shall support implementation of MTS requirements for quality management, environmental management, risk management and ethical considerations. Only approved sub-suppliers shall be used. The Supplier shall create and maintain a list of approved sub-suppliers. The list and evidence of sub-suppliers' performance shall be made available to MTS upon request.

18.3 Sub-supplier and subcontractor control

The Supplier shall continuously monitor its sub-suppliers' and subcontractors' performance using key performance indicators (i. e. product quality indexes, delivery performance measurement, cost competitiveness, assessment results and process reviews). The Supplier shall have an active system to make claims and manage respective corrective and preventive actions effectively.

18.4 Purchasing Documents

Purchase orders shall include all pertinent information regarding requirements for specification, quantity, delivery time, delivery term, price, quality, testing, and other relevant technical data. The purchase orders shall include all pertinent information regarding required documentation. MTS Terms and Conditions supersede all other documents.

19 Cost control program

The Supplier shall have a cost reduction program in place with processes for identifying cost improvement opportunities within the organization. Methods such as value analysis /engineering,

Kaizen, and LEAN processes, may be used. There shall be evidence of the effectiveness of the programs. The Supplier shall have a process/program to stabilize and/or reduce supplier pricing. The Supplier shall take actions to reduce waste or scrap to keep the overall cost of quality to a minimum.

20 Warranty

The Supplier shall have a warranty process. It shall cover all expenses incurred by MTS, including parts, labour, and travel (supplier's product failed due to material or workmanship). It shall cover the cost associated with field campaign (where deemed necessary). The Supplier shall have a process to monitor, manage and reduce warranty issues and related cost. The Supplier shall have a corrective action process in place to evaluate customer claims and returns in a timely manner, and to provide quick resolution and response to MTS.

21 Product liability

The Supplier shall have a Product Liability process that includes a recall process and defined liability related responsibilities. The Supplier shall take necessary steps from product development to product delivery to protect against potential product liability actions. The Supplier shall have liability insurance for finished products covering MTS's market areas.

22 Facilities

The Supplier's facilities shall be suitable and capable of handling production volumes, batch sizes and product dimensions required by MTS. The Supplier's facilities, equipment and tools shall be clean, well organized and in proper order. The Supplier's manufacturing, testing, packing, storing, and shipping shall have a clear layout to avoid bottlenecks created due to space constraints or unsuitable material or product flows.

23 Logistics

The Supplier shall have an established system and access to necessary service providers to supply both production material and spare parts to MTS on a global basis. The supplier shall have ASN capabilities or equivalent. The supplier shall notify MTS in advance of any late deliveries.

24 Shipping, Parts Identification and Label Requirements

The condition in which products arrive at our assembly plants is a critical extension of your company's overall commitment to quality and performance. It is therefore essential that you adhere to these Shipping/Parts Identification Label Requirements for MTS.

Standards and regulations are subject to periodic review and users are cautioned to obtain the latest edition/revisions.

These specifications provide guidelines for Shipping/Parts Identification Labels to be supplied on material utilized for the manufacture of MTS products. Standardization of Shipping/Parts Identification Labels with barcodes is essential to the MTS Company's goal of providing quality products to customers. Strict adherence to these specifications will reduce implementation costs, reduce payment delays, and increase benefits for

both MTS and its suppliers. **Any charges for repackaging and/or disposal will be billed back to the supplier. MTS reserves the right to request supplier presence to correct any quality problems related to labeling and packaging. Any continuous violation or recurring problem(s) will be referred to MTS Sourcing for further action**.

Labels are subject to approval by MTS. Once a label is authorized for production, all production part shipments shall have these labels affixed. MTS may request changes to data field contents on label(s). Suppliers are cautioned to maintain label inventories small enough to permit rapid changes.

Suppliers will be required to maintain data fields on all labels in accordance with MTS information. These data fields are subject to change and suppliers are expected to make these changes in the timing defined by MTS. The process to communicate these changes will be mutually agreed with both MTS and the supplier.

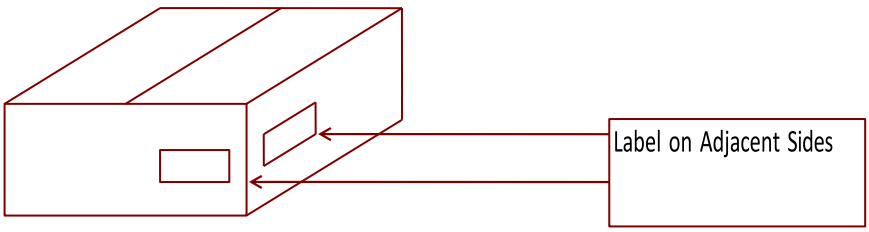
In instances where the connection to the Odette standard is not explicitly mentioned, it is recommended to adhere to the "Odette Transport Label" guidelines by default.

Any questions or concerns regarding packaging, labeling and/or identification requirements should be directed to your respective Sourcing or Logistics representative.

24.1 General Requirements

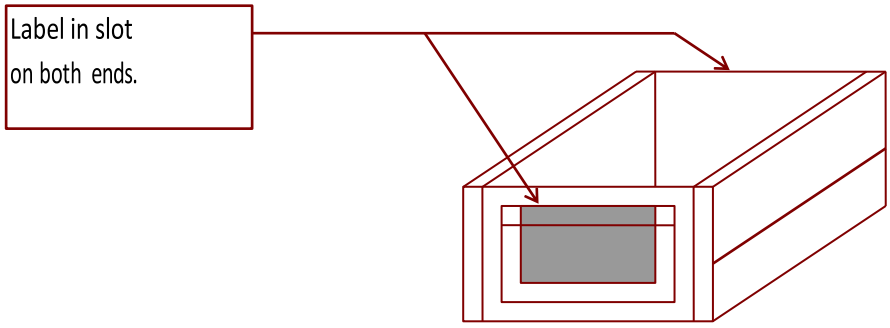
- Labels shall be approved by MTS prior to the first shipment by the responsible MTS Sourcing and/ or Logistics Specialist.
- Labels shall accurately identify the contents of the container(s).
- Containers shall display two labels, unless otherwise indicated. They shall be located on adjacent sides unless otherwise directed (Exhibit 1). For returnable containers, labels shall be located on opposite ends. (Exhibit 2).

Exhibit 1: Expendable Container Label Locations



- Markings and Labeling shall meet regulations regarding packaging and transportation of hazardous materials whenever applicable. It is the supplier's responsibility to maintain compliance with all current hazardous material shipping identification requirements.

Exhibit 2: Label Placement for Returnable Totes



24.2 Label requirements.

Label Size
Label size shall be 4.0 in (10.2 cm). high x 6.0 in. (15.24 cm) wide and should handle all known conditions (Exhibit 3). Labels shall be white in color with black printing. Label size may vary with approval from MTS but must contain all required information.

Readability
To ensure the readability of the bar codes, very high print quality is required. MTS recommends using either a Thermo or Thermo Transfer printer to reach acceptable quality. If a Laser printer is used to print the Labels it is necessary to follow the manufacturer specification accordingly to maintenance and paper material. Since a Laser printer is more sensitive to the environment it is working in. **Dot Matrix printers are NOT permitted in MTS's supply chain due to low print quality.**

Font type
- Font: Helvetica bold e.g. OTL / 1234567890
- Character Set: ISO 3098-1

Label Materials for Returnable Containers
Two cardstock labels are required for smaller-than-pallet-sized and returnable totes. Labels shall be inserted in frames and/ or affixed utilizing a coated sheet located on both ends of the container and protected from the hazards in the distribution environment. (Exhibit 2).

Adhesive Labels
Adhesive labels shall only be used on returnable containers when a method is used that allows for easy release. This is typically a "Place Label Here" placard on a container. (Contact MTS for more information or material source). Adhesive labels may be pressure-sensitive or dry-gummed as long as the adherence to the package surface is assured and that the Label is easily removable from the Transport package after usage. The label must be durable enough to ensure readability at its destination, i.e. being weather resistant. If the specified label cannot be affixed to package/container because of container size or design, hang tags may be used.

Tags (Hang Tags)
Tag size shall be the same as described in section 24.2 (size and material) plus

material necessary to add a reinforced eyelet. Tags should be durable enough to assure readability at their destination. Tags must be hung at both ends of container (same condition as exhibit 2).

Data Field Characteristics

The data fields shall be included on each label in designated data fields and shall be displayed in human readable characters (Exhibit 3). All data may vary in number of characters per the specified limits given in the following sections. Barcodes shall be printed in Code 39 Symbology and/or QR code (Review with MTS representative)

Data printed on the Label must be consistent with the data collected from the Delivery Schedules (ex. Global DELFOR) and in conjunction with the ASN message (ex. Global DESADV). The data information in readable text must be printed above and in conjunction with the bar code, e.g. Advice note number. Conditional Data Areas (Occasionally or Dependent information) which are not required by any agreement between MTS and the respective supplier, must be left blank. Non-significant (leading or initial) zeros and blanks/spaces in the data string should be suppressed/deleted when the bar code and/or human readable characters are printed.

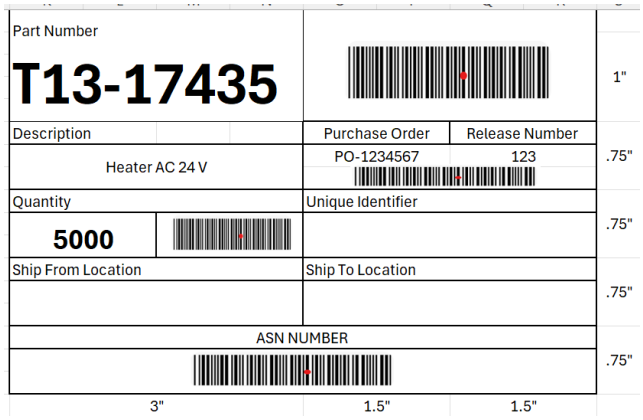
Data Fields and Titles

The data fields required for each label (minimum to process receiving): Part Number(P), Quantity(Q), Supplier ID (V), ASN number, Purchase Order Line/Release, Date (YYMMDD). The date must be preceded by the character "D" (Dispatch date) or "P" (Production date). Notify a MTS representative if these requirements need to be reviewed. (Exhibit 3 example)

The following are also recommended: Description, Supplier/Location, Container Code, Unique Identifier, and applicable Serial # and/or batches.

Each data field shall be separated by thin lines and shall contain its title in the upper left-hand corner, as shown in exhibits. Outer border lines are not required. Titles should be printed in 0.125 (cm)to 0.25 inch (cm) High letters. Human readable information may be above or below the respective bar code contained in each bar code box.

Exhibit 3: Typical Shipping/Parts Identification Label (sample only)



MTS Part Number Field (Required)
Human readable part number characters shall be bold and a minimum 0.5”(cm) high. Should follow the P.O for additional information on the shipping label.

Quantity Field (Required)
Human readable quantity characters shall be a maximum of nine (9) characters. Zeros shall not be printed ahead of the quantity. This field represents the quantity in each container. Each container in a shipment must be labeled. Barcode font 3of9 should be printed on the left-hand side of the part number.

Ship to Address (Required)
Human readable with Bold Fonts and no bar codes

Supplier Name/Ship from Address Field (Required)
Human readable supplier number Supplier Number shall be assigned by MTS.
The Ship from Location shall be included.

Description Field (Required)
Human readable description. Description shall be the same as stated on the purchase Order.

Unique Identifier (Optional)
Human readable shipment number. Unique Identifier to be determined by MTS and the Supplier. (Optional) No bar coding allowed.

ASN Supplier Requirements (Required for EDI Supplier)
Human Readable descriptions and bar coding is required. ASN box requires bar code font 3of9.

PO/Release Number (Required)
The Purchase Order field and Line/Release Number field shall be utilized for the Blanket Order Number. No bar coding allowed.

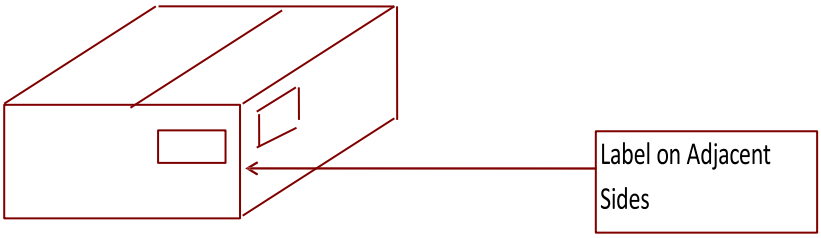
Labels/Cardholders

MTS requires 2 labels or cardholders per returnable container/rack. The location of these cardholders must be on the short ends of the container, unless otherwise specified. Any containers that arrive at the supplier with labels still attached must be removed.

Label location and protection.

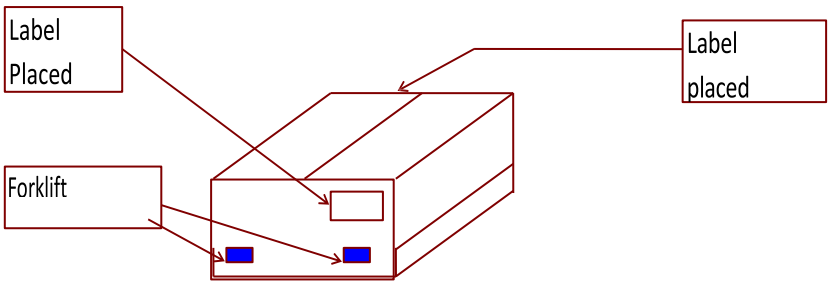
Label Location: Smaller Than Pallet-Sized Containers (Exhibit 4)
In all non-returnable containers, two labels are specified. Bottom edge of label shall be parallel to base of package/container. A label shall be placed on adjacent ends of individual boxes/containers.

Exhibit 4: Smaller Than Pallet-Sized Container



Label Location: Pallet-Sized Containers (Exhibit 5)
For pallet-sized containers, labels shall be placed on opposite ends. (Exhibit 5) Orient labels above forklift access on pallet-sized containers.

Exhibit 5: Pallet-Sized Container



Label Protection
Label protection against moisture, typical environmental conditions, abrasion, etc., may be required and is encouraged wherever practical. Laminate sprays, window envelopes, and clear plastic pouches are examples of possible protection methods. In choosing any protection method, care must be taken to assure that labels meet reflectivity and contrast requirements.

Palletized Load labels
Multiple, Common Item Packs
Individual labels shall be used on each container for all multiple container palletized loads which contain a single part number. Each container on a palletize load shall be identified with the correct shipping/parts identification label.

The use of a "Mixed Item Pallet" should be used for receiving accuracy (Exhibit 6).

Mixed Item Pallets
Mixed Load labels (Exhibit 7) are required when different part numbers are loaded on the same pallet. Each box shall be labeled with the correct label. Two labels must be attached to opposite ends of the load. A "Mixed Pallet" label is required when more than one part number is on a pallet.

Exhibit 6: Multiple Container Pallet Load

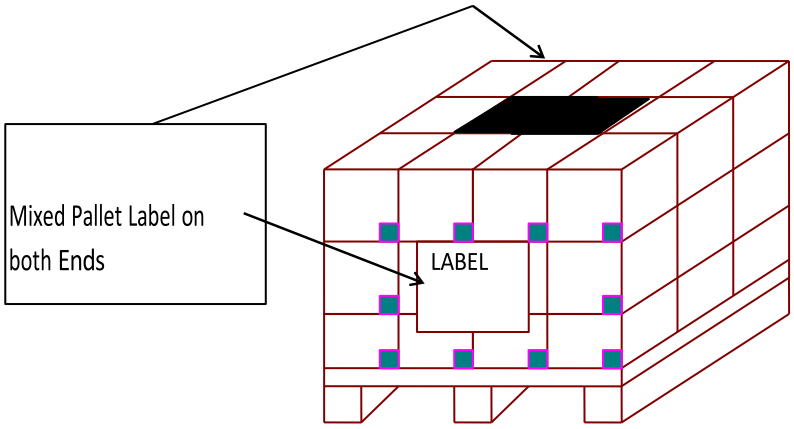


Exhibit 7: Example of Mixed Pallet Label

MIXED PALLET				
Part Number 1234567	Quantity 1000	ASN 123-456	PO	Release Num

Note: Landscape Format is preferred, 8.5” x 11.0

24.3 Pallet Requirements

Pallet Must Meet ISPM-15 Regulation.
Suppliers are responsible to ship all palletized cargo on heat-treated Or Fumigated pallets that comply with ISPM-15 regulation such pallets usually bear a mark or a coloured seal indicating that it has been treated/certified.

Pallet Size or Types
Use European standard pallet (size 1200 * 800 * 144) or American standard pallet (size 1100 * 1100 * 100), based on MTS Plant’s Specifications. The use of pallets in other sizes must be approved by MTS Sourcing and/or Logistics.

Skid Configuration	North America	Europe	Asia
	OK	OK	OK
	OK	OK	NOK
	OK	OK	OK

24.4 Product Palletization

All Palletized products must be secured to prevent the load from shifting. Stretch wrapping and/or plastics banding is permitted. Product labels/and or shipment/carton labels must face outward.