

# SUPPLIER QUALITY ASSURANCE MANUAL FOR PARTS AND RAW MATERIALS

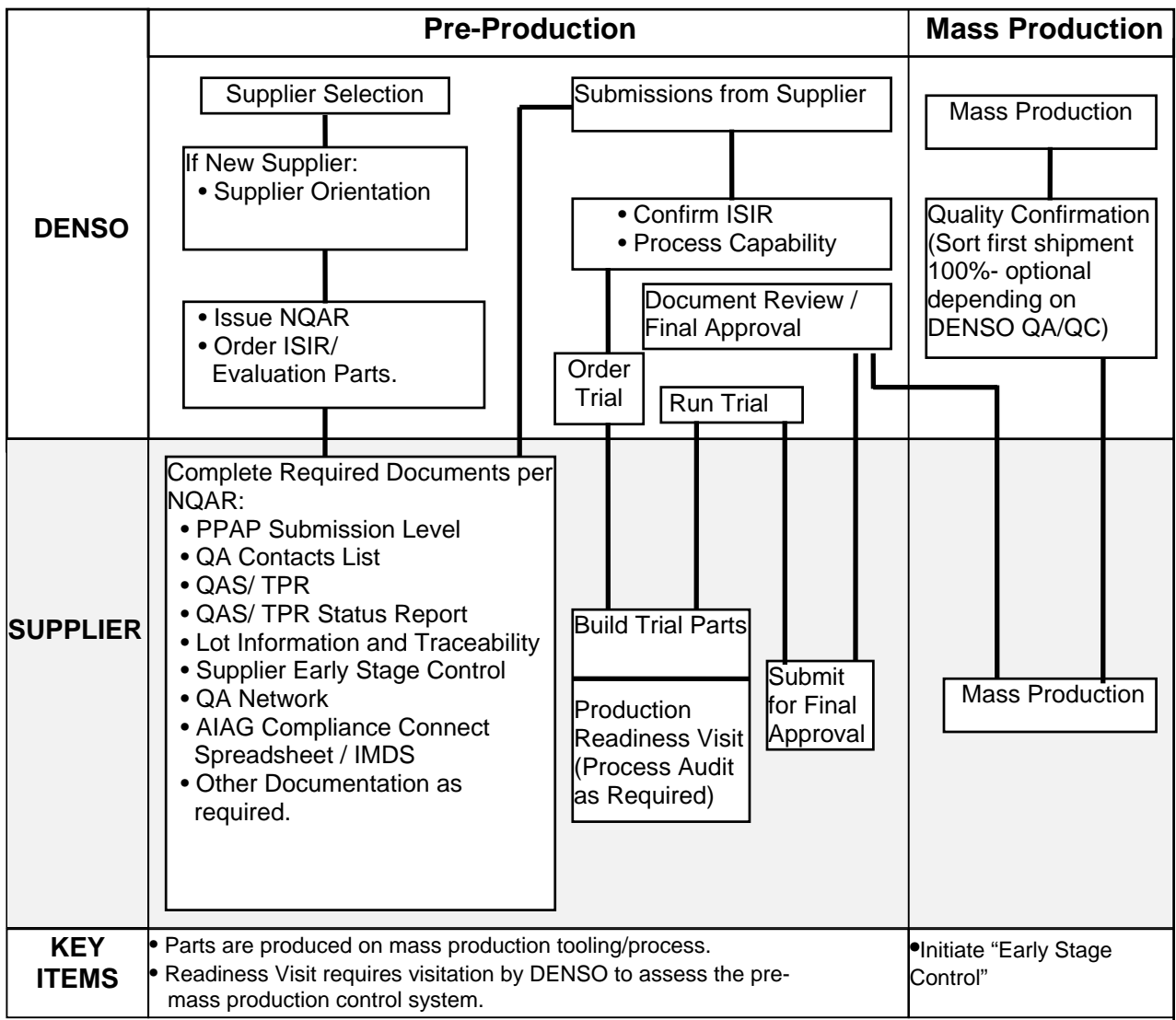
\*\*\*\*\* QUALITY ASSURANCE FOR TRIAL PRODUCTION \*\*\*\*\*

## SECTION 6 - OVERVIEW OF PRE-PRODUCTION/ MASS PRODUCTION PREPARATION ACTIVITIES/ SQAM SUBMISSIONS CROSS-REFERENCE TABLE

**PURPOSE:** To provide an overview of activities required to get Supplier's products into mass production. These are the minimum production preparation requirements for the Supplier. To document when and which submissions are to be submitted during trial production start-up and mass production maintenance activities.

**SCOPE:** Applies to all Suppliers of production parts and raw materials to DENSO.

### Flowchart: Overview Of Pre-Production/ Mass Production Preparation Activities



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**Table: Document Submission Requirements**

Document	Pre-Production Requirements	Mass Production Requirements
DENSO Notification of Quality Assurance Requirements (NQAR) <u>Note</u> : Only issued by DENSO so not included in the Blank Forms section of the SQAM.	Supplier must fulfill the requirements listed on the NQAR.	Supplier must continue to fulfill the intent of the NQAR.
DENSO Supplier QA Contacts List	Per NQAR Schedule.	When Supplier QA Contacts change.
DENSO Supplier Procured Check Fixture, Gage, and Test Equipment Request/ Approval	When fixtures, gages, test equipment are required.	For new/ modified fixtures.
DENSO Supplied Check Fixture, Gage, and Test Equipment Receipt and Condition Report	When fixtures, gages, custom test equipment are required.	For new/ modified fixtures.
DENSO Supplier Quality Assurance Schedule (QAS)	Per NQAR Schedule.	As required for process change.
DENSO Supplier Tooling Progress Report (TPR)	Per NQAR Schedule.	As required for process change.
DENSO Supplier QAS/TPR Status Report	Per NQAR Schedule.	As required for process change.
DENSO Supplier Control Plan.	Per NQAR Schedule.	When revised.
Process Failure Mode and Effects Analysis (PFMEA).	Per NQAR Schedule.	As required for process change or countermeasures.
Process Capability Study	Per NQAR Schedule.	As required for process changes, countermeasures.
Gage Repeatability and Reproducibility Study	Per NQAR Schedule.	As required for process changes, countermeasures.
DENSO Supplier Initial Sample Inspection Report (ISIR). For raw materials, this may be substituted with a Material Certification or Material Test Report if approved by DENSO QA/QC.	Per NQAR Schedule	- Engineering changes. - Process changes.
DENSO Supplier Initial Sample Inspection Report (ISIR) Checklist	Per NQAR Schedule.	- Engineering changes. - Process changes.
DENSO Supplier Lot Information and Traceability	Per NQAR Schedule.	For any change items.
DENSO Supplier Early Stage Control Plan.	Per NQAR Schedule.	As needed.
DENSO QA Network	Per NQAR Schedule.	As needed.
AIAG Compliance Connect Spreadsheet/IDMS	Per NQAR Schedule	As needed.
DENSO Supplier Final Approval Request	At completion of early stage preparations/ submissions for DENSO QA/QC part/ material approval.	As needed.
DENSO Mass Production Readiness Check Sheet. The completion of this form is the responsibility of DENSO.	As needed.	Not applicable.

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**Table: Document Submission Requirements (Continued)**

<b>Document</b>	<b>Pre-Production Requirements</b>	<b>Mass Production Requirements</b>
DENSO Supplier Request for Parts/Components	As needed.	As needed.
DENSO Supplier Stratification Control Sheet	-With first shipment of parts and any first shipment of revision level parts.	- For all deviated part shipments except die deviation. - First shipment process change parts.
DENSO Supplier Deviation Request/ Reply	For ISIR deviating items.	For items not meeting drawings/specifications.
DENSO Supplier Boundary Sample/Master Samples.	As needed.	As needed.
DENSO Supplier Process Change Request/ Reply	Not allowed during early stage.	3 months prior to change (submit original to QA/QC and a copy to Purchasing).
DENSO Supplier Quality Failure Notice	Per timing on Quality Failure Notice.	Per timing on Quality Failure Notice.
DENSO Supplier Quality Failure Answer Sheet	Per timing on Quality Failure Notice.	Per timing on Quality Failure Notice.
Value Analysis/Value Engineering.	Not allowed during early stage.	As required by Purchasing.

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**Table: Document Cross Reference (PPAP vs. DENSO SQA Manual)**

<b>PPAP Document</b>	<b>DENSO SQAM Form</b>	<b>Comment</b>
Design Records of Saleable Product	None	
Engineering Change Documents	None	
Design FMEA	Per AIAG FMEA manual or equivalent	See AIAG FMEA Manual
Process Flow Diagram	Per AIAG APQP manual or equivalent	See AIAG APQP Manual
Process FMEA	Per AIAG FMEA manual or equivalent	See AIAG FMEA Manual
Dimensional Results	Initial Sample Inspection Report (ISIR)	
Material /Performance test Results	None	
Initial Process Study	Per AIAG SPC manual or equivalent	See AIAG SPC Manual
MSA Study	Per AIAG MSA manual or equivalent (GR&R)	See AIAG MSA Manual
Qualified Laboratory Documentation	None	Lab must comply with ISO/TS 16949
Control Plan	AIAG Standard Control Plan or equivalent	See AIAG APQP Manual
Part Submission Warrant	Supplier Final Approval Request	
Appearance Approval Report	None	
Checking Aids	Supplier Procured Check Fixture, Gage and Test Equipment Request/Approval	
Record of Compliance with Customer Specific Requirements	None	
None	Supplier QA Contact List	
None	Quality Assurance Schedule & Tooling Progress Report	
None	Boundary Sample/Master Sample	
None	Early Stage Control	
None	Supplier Lot Traceability	
None	QA Network	

**Note: Supplier must use DENSO's forms for submittals where shown in the table above.**