

**SUPPLIER QUALITY ASSURANCE MANUAL
FOR PARTS AND RAW MATERIALS**

***** QUALITY ASSURANCE SUPPORT ACTIVITIES FOR TRIAL AND MASS PRODUCTION *****

**SECTION 40 - PROCESS CHANGE REQUEST (PCR), REPLY/ DESIGN
CHANGE REQUEST (DCR)/ ENGINEERING CHANGE INSTRUCTION
(ECI)**

PURPOSE: To explain the procedure for Suppliers to request consideration for a Process Change request.

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

EXPLANATION:

The DENSO Supplier Process Change Request (Process Change Request) form is used by Suppliers to request a process change to parts/ materials manufactured for DENSO. The Process Change Request is also used by DENSO to approve or reject this request. If a Supplier needs to request a Material Change, a Design Change Request may be necessary. In either case, the VA/ VE Proposal form needs to be completed and submitted in order for the request to be considered. Additionally, Parts Suppliers, need to submit a Quote Worksheet. (There are example forms filled out in Section 44 Value Analysis/ Value Engineering and there are blank forms in Section IV - Blank Forms).

SUPPLIER RESPONSIBILITIES:

1. The Supplier must submit a Process Change Request to DENSO Purchasing as soon as it is clear that the Supplier would like to have a process change considered by DENSO. A minimum of 3 months is recommended in advance of the proposed process change. Please note, however, that approval or disapproval of a Process Change Request may take considerably longer than 3 months. A process change is defined as, but not limited to:
 - A. Change of manufacturing equipment (New / Refurbished / Different).
 - B. Change of manufacturing process (Process sequence, Conditions, etc).
 - C. Change of materials (Supplier of / New / Different).
 - D. Change of chemicals or submaterials used in the manufacturing process (etching, cleansing, heat treating, plating, etc...).
 - E. Change of process / equipment / material at subcontractor.
 - F. Supplier's in-house production is sub-contracted or vice versa.
 - G. Change of Inspection Method
 - H. Any changes that DENSO judges a process change.

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2. The Supplier must also consider if the change they are requesting is actually a Design Change Request. The following are examples of what would generally require design change requests:
 - A. Change of any dimension specified on the drawing.
 - B. Change of any tolerance specified on the drawing (design tolerance).
 - C. Change to the Material Specifications.
 - D. Change to any performance testing procedures or requirements.

3. In the case of a request being made for a design change, a Design Change Request form must be submitted to DENSO Purchasing per their Value Analysis/ Value Engineering (VA/ VE) Policy which is outlined in Section 44 - Value Analysis/ Value Engineering (VA/ VE) of this Manual.

4. If approved, a DENSO Engineering Change Instruction (ECI) will be sent to the Supplier by Purchasing along with the new drawings/ specifications. A description of the ECI process is provided in DENSO's Production Control Supplier Guide.

5. If the Supplier is unsure whether a change requires the submittal of a Process Change Request, they should contact DENSO QA/QC for directions.

6. The Supplier must fill out the top portion of the Process Change Request and must include the following information:
 - A. Supplier name.
 - B. Part / material number.
 - C. Part / material name.
 - D. Reason for change.
 - E. Description of change.
 - F. Fill out description of Existing Process, Proposed Process, and Affected Characteristics.

Note: Supplier is not to fill out the Process Change Request Number, this is done by DENSO.

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7. The Supplier must attach any additional supporting documentation and an implementation schedule with the following information:
 - A. Prototype / testing schedule.
 - B. Die / equipment schedules.
 - C. Capability studies from final tooling.
 - D. Revision of standards / job sheets.
 - E. Completion of initial samples.
 - F. Delivery of initial samples.
 - G. Start of mass production.

8. The Supplier may use the QAS format or there own format for the implementation schedule (Reference Section 15 - Quality Assurance Schedule (QAS) and Tool Progress Report (TPR)).

9. The Process Change Request and Implementation schedule must be approved by the Supplier's Quality Assurance Manager or equivalent. Consideration should be given when developing the proposed implementation schedule for the time that will be needed by DENSO to conduct initial internal testing. The Supplier's DENSO QA/QC Contact may be able to assist the Supplier in determining how much time will be needed for these internal activities.

10. Once the Process Change Request is received at DENSO, it will initially be reviewed for acceptability and additional requirements determined. DENSO will fill out the Initial Response section and return a copy to the Supplier. The Supplier must submit all items required by the due dates specified on the Process Change Request. No further consideration will be given to the process / material change until all items are completed to DENSO's satisfaction.

11. Once all items are received, DENSO will review, perform measurements / testing and make a final judgment on the Process Change Request. A copy of the Process Change Request with the final judgment will be sent to the Supplier.

12. If approved, the Supplier must follow the Stratification Control Procedure to identify the first shipment to DENSO (Reference Section 37 - Stratification Control).

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Flow Chart 1: Process Change Request Flow

