NISSAN
MOTOR CORPORATION

5.3 Tooling, Gauges and Facility Management

Activity Purpose:

- The supplier shall manage all necessary equipment to ensure that Nissan requirements are achieved and maintained.
  As part of this management, the supplier shall ensure that all equipment is capable, reliable and in a stable condition during use.

Note(s):

- Equipment to be managed includes, but is not limited to, machinery, moulds, jigs and fixtures, tools, gauges, inspection and test equipment.
- Planned changes to equipment conditions (e.g. changes required as a result of a modification to the product or process) shall be managed through the change management activity.
- Unplanned changes to equipment conditions (e.g. damage, wear etc.) shall be managed through the suppliers' maintenance processes.
- Unless otherwise completed following steps, the supplier shall not start production.
  - Check the equipment condition/function (including poka-yoke (error-proofing)) along with the check sheet.
  - Inspect first article after set-up sample size along the check sheet. (e.g. Three pieces before production)
  - Assign an appropriate person (e.g. supervisor) and review the result of inspection.
- Submission of Gauge Specification and Approval Sheet
  Upon agreement with Nissan, the supplier's own document may be used.
  Submission will be required in two stages:
  - Gauge specification confirmation prior to gauge manufacture.
  - Gauge approval after gauge manufacture, prior to the supplier's initial "off-tool" trial build.
- Ownership
  Part specific gauges shall be specified and procured by the supplier. Ownership of gauges will be agreed with the relevant Nissan Purchasing Dept.
- Material
  All materials employed in the manufacture of the base or surface of the gauge shall be sufficiently robust and hard wearing to

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Withstand normal usage and handling, whilst retaining dimensional stability throughout model life. Material selection should reflect the ability to allow minor modifications and / or repairs to be carried out easily, quickly, efficiently and at relatively low cost.

- Calibration

  Calibration of gauges shall be monitored and maintained by the supplier. The supplier shall provide and maintain a gauge Calibration report to confirm the gauge has been introduced into the supplier's calibration system. Initial gauge buy off data shall be recorded and retained for all Special Characteristics and Key Features.

<table>
<tr><th>Phase</th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th></tr>
<tr><td>Activity Content</td><td></td><td>●Specify equipment (including test equipment), tools, dies and gauges.
●Create an installation plan related to the equipment, tools, dies and gauges.</td><td>●Implement the installation plan and monitor progress.</td><td>●Ensure all necessary equipment is installed as per the installation plan.
●Conduct trials of the mass production condition to prepare the system for mass production</td><td rowspan="2">●Maintain the condition of all necessary equipment, including the correct function of all error proofing devices.
●If a change is required, follow the change management activity</td></tr>
<tr><td></td><td></td><td colspan="2">●Validate the equipment (including test equipment), tools, dies and gauges using the results of production at the off-tool and off-process trials.</td></tr>
<tr><td rowspan="2">Output Document</td><td></td><td colspan="4">● Gauge Specification Sheet</td></tr>
<tr><td></td><td colspan="4">● Gauge Approval Sheet</td></tr>
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