WORLDWIDE ENGINEERING STANDARDS	General Specification	GMW15328

Prototype Tooling and Part Requirements

1 Introduction

Note: Nothing in this standard supersedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. The objective is to enable suppliers to understand and differentiate prototype tooling/part requirements from those required for production components.

1.2 Applicability. This standard defines the tooling/part requirements in respect of submitting a quote for GM prototype programs.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW3059 GMW14057

2.3 Additional References.

- Forms and Cost Breakdown Sheets
- GM1804
- GM1810 (The latest version posted on GM SupplyPower)
- GM Operating Guidelines for Suppliers of Prototype Material
- Pre-Production Part Quality Process (PPQP)

3 Requirements

Additional recommendations pertaining to prototype material procurement are outlined in GM's Operating Guidelines for Suppliers of Prototype Material.

Proposed revisions by Supplier to this standard (including suggestions, which may reduce cost and timing or increase customer value) should be identified clearly in Supplier's response to the Request for Quote (RFQ). Should GM elect to adopt some or all of any such proposed recommendations, GM's pre-production buyer supported by the GM Vendor Tooling Engineer (VTE), must authorize them in writing.

3.1 Tooling/Part Fabrication Requirements.

Note: The following requirements apply to all prototype components (e.g., metal stampings, plastics, electrical, and castings).

3.1.1 Prior to issuance of a GM Prototype Purchase Order, (P.O.), the Supplier must competitively quote (with costable drawings i.e., screen prints, sections, etc.,) the required prototype tooling and parts per GMW15328.

Note: For GMNA Only. Supplier is required to quote a minimum of three of GM's recommended prototype suppliers in addition to supplier's bid list. Pre-Production Purchasing will support the supplier by sharing a list of regional suppliers in order to meet the requirements outlined in 3.1.1.

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As a global company, General Motors is sharing elements of product programs including tooling in many regions around the world. In support of the execution of globally shared product programs, General Motors' regional offices and joint venture partners will be procuring material for vehicle builds conducted in various locations. Accordingly, suppliers may receive separate requests in varying formats from various regions requiring material from said tooling. These requests are to be afforded the same attention and priority as requests from the original initiating office.

Note: Supplier is not authorized to begin any work until Supplier has received a GM Prototype P.O. from the GM pre-production buyer. The Advanced Purchasing (AP) Award is not an authorization to begin work on prototype tooling.

Advanced Purchasing (AP) awarded prototype costs represent **not to exceed** costs, and are not authorization to begin work on prototype tooling.

3.1.2 All plastic and casting suppliers are to pull-ahead any production Phase I Coordinate Measuring Machine (CMM) hold fixtures, die cut tools (where applicable), and as many production tools as possible for the Integration Build.

Note: Production Part Approval Process (PPAP) is not required for production pull-ahead tools and fixtures utilized in prototype.

3.1.3 Supplier is not to include, any associated costs for production pull-ahead tooling, fixtures, and/or gages. As a requirement for tool kick off, Supplier must update GM1810 identifying all production pull-ahead tooling/fixtures and forward to the GM Production Buyer and Vendor Tooling Engineer.

3.1.4 All parts not off of production pull-ahead tools are to be made from non-production intent soft tools (i.e., no/minimum action, manual ejection system, and hand loaded lifters).

Note: Suppliers are not to direct prototype tooling suppliers on how to design/construct tooling. Suppliers may provide design/construction recommendations, but shall not impose requirements beyond those outlined in this standard.

3.1.5 Supplier shall Computer Numerical Control (CNC) cut all dies/molds to GM math/supplier integrator data release, unless otherwise directed by the GM Pre-Production Operations (PPO) process engineer/material analyst.

3.1.6 Suppliers must have a clearly legible casting pour date for any tools being cast.

3.1.7 Margins (Selling, General, and Administrative (SGA), Profit, etc.,) are not permitted to be included in Suppliers' costing. Costs obtained from Subcontractors are to be made transparent to GM. Supplier shall provide to the GM pre-production buyer a competitive quote summary for all subcontracted work. Supplier shall also provide locked Portable Document Format (PDF) copies of all competitive quotes on the bidder's letterhead; and inform the pre-production buyer and VTE of the supplier selected to perform the work.

3.1.8 The Supplier is required to include in its quote to the GM Pre-production buyer completed Prototype Cost Breakdown Sheets (Form Numbers e1810 and GM1804) detailing all costs. The Supplier is also expected to provide screen prints of all parts to be tooled.

3.1.9 Supplier shall not apply any set-up charges to the initial prototype order; however, Supplier shall quote reset-up charges for any applicable future orders. There are to be no handling, testing, inspection, PPQP (non-critical parts), bar code labeling, shipping/transportation charges, or administrative costs for any parts being ordered, including Directed Buys (refer to the GM Operating Guide for additional information).

Note: No additional funds will be provided in prototype piece cost for packaging, SGA, profit and handling costs. Consistent with this requirement, business with Production Suppliers is expected to be transacted on a zero-margin basis.

3.1.10 Engineering Design and Development costs shall not be included as part of prototype tooling and component costs.

3.1.11 Supplier to ensure lead-times meet Material Required Dates (MRD) (without any premium time charges) at the requesting regions' build site(s). Suppliers satisfying requests from non-local regions may have significant shipping times that must be factored into the respective material availability plans. Premium costs shall not be amortized into the piece cost or tooling. Supplier must obtain approval from the GM pre-production buyer for any premium costs associated with the fabrication of prototype tooling and components.

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