

**Q2P – Engineering Change Process Flow Chart**  
Rev H: 05NOV2018

Related ISO Forms:  
Q2P-2  
Replaces E02

The following Items must be filled out appropriately:  
**Change Request (Primary Reason):**  
**Design (Dim & Tolerance):** Select if requesting a change to a dimension  
**Material:** Select if requesting a different raw material or component  
**Other/ Combination:** Select if multiple changes from 1<sup>st</sup> 2 categories.  
**Outside Process:** Select if requesting change b/c of different machine, routing or capability  
**Planner:** Select if only want a change to related Planner Documents  
**Print Error:** No physical change to part, just correction of print errors  
**Tooling:** Select if tooling change is required  
**Location:** IVS (SC, UK or NH), PVS (Tacoma)  
**Impact:** Rate based upon priority to help assignment priority  
**Due Date:** List Required Due Date  
**Part:** List Primary Part of where change is require (If family Change, check box below and list Family Series)  
**Rev:** List Rev of primary part, if multiple parts denote by entering N/A  
**Description:** List description of primary part (not of change)  
**Parts affected:** List all top level assemblies or components that may be effected. If list exceeds space a separate list should be attached electronically and shown as "See attached list"

CMC Staff has requirement for Engineering Change or Temporary Deviation for Production on Floor

CMC Manufacturing, Engineering, Supervision or Quality Staff Logs into Q2P Portal

CMC Staff Clicks on "File" and selects "Create" "Engineering Change Request"

Is this a Temporary Deviation?

Check the "This is a Temporary Deviation Box"

Fill in the following:  
**Time Needed:** List time of the day that deviation is needed.  
**Work Order:** List Work Order or Day of Lot if Work Order isn't applicable for plant location.  
**Quantity:** List Quantity for which Deviation is being requested.

Fill in the following for **Instructions:** (A marked up print is also helpful and can be included at the last step)  
 1. Dimensions that need changed,  
 2. New Material that is being requested  
 3. Description of Change to Tooling  
 4. Testing that might be required or will be performed to validate

Fill in the following for Reason:  
 1. List why the request is being made.  
 2. If the request has been made in the past (for temporary deviations only)  
 3. Description of problems if any that are occurring, and preventing production "as is"  
 4. Any other pertinent info for change such as testing or supporting findings.

Click Submit ECR

At Prompt attach any documents in PDF, DOC, XLS format if necessary

At submission of the ECR a auto-email will be sent to the Engineers within the IVS designation stating a new ECR has been submitted

ECR will be viewable in log as "Submitted"

Engineer or Engineering Manager will assign open ECR's or Deviations to an Engineer (Deviations are viewable in Yellow in Log)  
 To Assign Engineer – Select Engineer from pull down and select "Assigned" in the status drop down. Then Click update

Assigned engineer and Requestee will received email that states that ECR/Deviation has been assigned to the listed person

Assigned Engineer next will open ECR and move Status to **Work In Progress**  
 An Auto Email will be sent to requestee stating that ECR is now being worked on

The Engineer begins work on the ECR or deviation. Any work or request for info should be noted in the "Notes" section. If a note is incorrectly entered, enter another note stating this.

Is the ECR or Deviation Acceptable?

The "Rejected" status is to be selected

A reason window will pop open for the engineer to list why the ECR or Deviation is being denied. An auto-email will be sent to the requestee of the denial

Process is Complete

Is this a Deviation

If any special requirements to deviation they are to be listed in Notes Section ("Notes" will then be highlighted in RED)

If test data was required by manufacturing for approval, data should be attached using the upload documents button or added to the notes section. Example: Strength Test Results to be listed to prove compliance with deviation terms.

The "Approved" status is to be selected

Process is Complete

**Change Functional Review**

Engineer makes draft drawing changes.

Engineer moves status to "Drawing Complete Pending Approval"

Engineer to Attach Draft Prints to ECR.

Is Costing or MFG Change Required?

**Approval**

Is Supplemental Approval Required?

Move Status to "Approved" - Email sent to Engr, Mfg Engr, Cost Act to complete SAP work.

Check boxes for "MFG and/or Costing Change Required" as required

Assign a MFG Engineer and/or Cost Accountant dependent on the change type

Person Assigned will receive an email

If Manufacturing Routing change is needed before costing can be complete the mfg engineer will complete the cycle time estimate sheet and upload to ECR as required.

**System Updates**

**Change Summary Required**  
 (This section is meant to summarize changes and affects to all parts within the ECR)

List all additional part numbers affected by this change request. Including their new revision, description of change, stock disposition and effective date.

Re-assign the ECR to the Cost Accountant. The MFG Engineer will move status to "MFG/Ind Engineering Approval" and clicks "update" \*\*

Accounting updates costing

Cost Accountant moves status to "Costing Complete" and clicks "update" \*\*

\*\* Mfg Engineer or Cost Accountants do not need to reassign full ECR to themselves, but only change the status to selected setting and hit update. Emails of completion of step will be sent automatically

Make SAP Changes per Std Work.  
 Upload Prints to Filebound. (Remove Draft from print)

Supplemental Approvals

Click the Supplemental Approval Box

Assign one person as required from QA, OPS, Sales and Purchasing per the Engineers Discretion  
 NOTE: IN THE CASE OF REQUIRING "ENGINEERING" SUPPLEMENTAL APPROVAL REGARDING CASES OF CUSTOMER REVISION CHANGES THE ASSIGNED ENGINEER IS TASKED WITH CONFIRMING THAT ALL CABLERRAFT REVISED DOCUMENTATION CONFORMS WITH THE CUSTOMER REQUIREMENTS (PRINT, SPECS, ETC)

An Email will be sent to each of those people and they will be required to sign in and approve/acknowledge the ECR by checking off in the appropriate box next to their name. If approval is not achieved the ECR can not be completed.

If any Department has issues with the ECR. They should be addressed with the assigned engineer with comments left in the notes section.

The "Rejected" status is to be selected  
 A reason window will pop open for the engineer to list why the ECR or Deviation is being denied. An auto-email will be sent to the requestee of the denial

Process is Complete

"SAP Change No." (ECR Number) logged in ECR (If no SAP changes are required, use 'N/A' for change number).  
 "Distributed" Check Box is checked  
 Check Cross Ref Update Required (Y/N)  
 Check Complies with Customer Drawing (Y/N/NA).

Auto-Email is sent to all parties

Status is Changed to "Complete"

Process is Complete