

# Transfer Tooling

## REASONS FOR INITIATING TRANSFER

Strategic supplier consolidation

Problem with current supplier

- Increasing costs
- No longer aligned due to change in location, core competency shift, strategic focus, stagnant technology investments, not willing to invest in growth
- Dissatisfaction with current quality or customer service
- Inadequate supplier quality system
- Financial stability
- Long lead times, not flexible or reactive to shifts in demand
- Change in ownership which impacts relationship or creates business conflict

Moving internal resources to a more strategic geographic location

Group similar manufacturing technologies or custom solutions

## ADVANTAGES OF TRANSFER

Focused supplier management

- Improved account management focus
- Reduce and consolidate travel costs
- Strategic need alignment
- Fewer audit requirements

Able to leverage higher volumes for lower manufacturing rates

Higher raw materials purchase amount for lower raw material costs

Improve quality, increased assurance of supply, responsiveness, customer service

Reduce shipping costs with consolidated or closer deliveries

Access to new technologies and capabilities

### “DOs”

Build a robust process-based plan with key stage gates and process steps.

Have a pre-approved “Plan-B” if validation fails.

Expedite an aggressive quality plan.

Agree on a pre-transfer checklist.

Retain approved last shot samples.

Have a project team with an approved budget in place.

Monitor status of daily safety stocks, inventories, and sampling execution.

Empower the project manager with the tools and resources to be successful.

### “DON'Ts”

Reinvent a quality standard due to urgency.

Build large inventories to compensate for a poor transfer plan.

Forget to complete pre-project planning work.

Allow any action items to be delayed.

Limit project management and supplier visibility to stock levels.

Hesitate to change priorities based on stocks.

Ignore out of specification or misalignments in the Gap Analysis.

Expect a new vendor to process around a tool in poor condition.

Delay key decisions!

## PRE-PROJECT PLANNING – PRIOR TO REMOVING CURRENT ASSETS FROM PRODUCTION

Determine and run required safety stock

Gain cross functional approval at both supplier and OEM on a validation protocol:

- First Article Inspections
- Capability study requirements and processing conditions
- Potential to validate based on statistical equivalency: part weight and critical dimensions only. Minimize the risk of tooling and drawing changes.
- 3-way Gap check of delivered components vs solid model vs part print
- Using CT scanner when possible for complex surfaces or first article inspection data generation
- Deliver full report, align on plan to address Gaps

Form project teams and establish cross functional communications

Hold pre-scheduled standing meetings with project team and monthly steering committee meetings

Advance order raw materials to cover process development, validation, PQ, and preliminary production requirements

Have project budget available and approved up front for travel, tool repairs, and missing items

## ASSET RECEIVING AT SUPPLIER

Generate incoming inspection documentation

- Document all received assets, issue condition report, identify and mitigate any risks

Execute transfer plan

- Clear agenda-based weekly meetings
- Escalate issues and requests immediately

## Deliverables to strategic supplier if available – Information Phase

2D part prints and 3D solid models of parts and molds

Sample components with runner: 3-10 complete shots

Individual part weight and overall runner weight

Runner system type, manufacturer, and connection method

Coolant system as well as ancillary connections

Process settings and cycle times

Quality history

Tool condition report

Overall asset list

Packaging and labeling requirements, ship to location

Automation or value add requirements

In process lot inspection requirements

Metrology equipment required

CoC and retain sample requirements

Raw material or FG minimum inventory requirements

## Risk Mitigation

HOW TO REDUCE RISK AND KEEP SUPPLY CHAINS FLOWING

### GATHER KEY INFORMATION AS A STARTING POINT

Develop process map of current process

Define asset ownership and condition:

- Tooling, spares
- Inspection fixtures and gages, functional test equipment
- End of arm tooling, manifold controllers
- Value added fixturing or equipment
- Raw materials that will be transferred – Sealed with manufacturer certs only

### SHARE ESSENTIAL DATA TO FIND AVAILABLE CAPACITY

Required:

- Tool information (size), tool prints, or mold models.
- Cavitation
- Annual demand

If available:

- Cycle time or process sheet from current supplier
- Shot size

### WORK WITH EXPERIENCED SUPPLIERS - WORK WITH COMAR

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