



Request For Design & Manufacturability Review (RDMR)



I. Objective:

This request is intended to promote a cooperative and iterative review of a proposed product design by potential supply sites, Master Lock and Waterloo for issues of manufacturability. Design concerns and potential solutions are to be documented by the supply site and communicated back accordingly.

II. Project Description:

III. Request information:

ECO#:		Review Response Date:	
BCP#:		Estimated Ship Date:	
Request By:		Projector Manager:	
Request Date:		Business Team:	<input type="checkbox"/> Com/Ind: <input type="checkbox"/> Locker/OEM: <input type="checkbox"/> Retail:

Design Responsibility	<input type="checkbox"/> Master Lock & Waterloo	Note: Vendor will be required to ensure that all assembly and component part specifications (dimensional and functional) are met.
	<input type="checkbox"/> Supplier	Note: Vendor will be required to ensure that all specifications (dimensional and functional) shown on the final assembly are met. Any component specifications provided should be considered as guideline information only.

Product Validation The Vendor will be responsible for submitting a FAIR (First Article Inspection Report) from 5 samples of each cavity/tool produced off production tooling and assembly equipment. The FAIR's shall include all features, notes, coating and materials as specified on the ML Drawing. Also refer to the Quality Requirements worksheet.

IV. Preliminary Product Information:

Part Number	Rev.	Description	Target price	Estimated Volume				Affected location			Sample Part	Estimated Date Start of production
				1st yr	2nd yr	3rd yr	Peak Monthly	Milw	Nog	Global Sourcing		
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
								<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

V. Master Lock & Waterloo Design Concerns & Assumptions:

(Master Lock & Waterloo Product Development highlights all known design and processing risk, critical features, underfined segments of the design documentation, and processing assumptions & recommendations and specific area for supply site feedback)

1. Print tolerances & features:
2. Performance Specification:
3. Fabrication Processes:
4. Material Specifications:
5. Material Heat Treatments:
6. Machining Requirements:
7. Product Finishing (polishing, plating, painting, coating, etc.):
8. Joining Processes:
9. Assembly Processes:
10. Quality Requirements: see 'Quality Requirements' worksheet
11. Packaging Requirements:
12. Requirements for Sub-tier Suppliers:
13. 3rd Party Audit requirements:
14. Other Manufacturing Processes / Issues:

VI. Manufacturing / Supply Site Response:

(The supply site documents any concerns, exceptions & recommendations in this section)

Part Number	Estimated Cost (\$ / unit)			Estimated Lead time (days)			Remarks
	Cost for Prototype Samples (\$)	Total Unit Cost (\$ /unit)	Incremental Unit Cost (from current to proposed design)	Engineering Build Samples	PPAP Samples	Production	

Estimated Implementation Costs:	Brief Description of Equipment, Tools, etc:
New Equipment:	
New Tooling:	
New Gauges:	
Tooling Modifications:	
Obsolete Inventory	
Samples:	
Testing:	
Misc./ Other:	
contingency:	
Assembly/ Labor Only	
TOTAL:	\$ -

Detailed Quotation Breakdown list:

No	Part Name	Part Number	Usage	Material	Finishing	Part cost breakdown(\$)			Total Unit Cost (\$)	Tooling(\$)			Remarks
						Material cost (\$)	Finish cost (\$)	Overhead cost (\$)		Tooling cost (\$)	# of Cavities	Lead time	
1									\$ -				
2									\$ -				
3									\$ -				
4									\$ -				
5									\$ -				
6									\$ -				
7									\$ -				
8									\$ -				
									\$ -				
Final Assembly:													
Sub-total:									\$ -	\$ -			
Scrap Cost:													

Descriptions	Remarks:	Cost(\$)
1 Packaging Cost		
2 Freight Cost	F.O.B Location:	
3 Factory Overhead Cost		
4 Profit		
5 Tax		
TOTAL:		\$ - \$ -

Estimated Freight and Duty 15% \$ - (for Master Lock use)
 Estimate Landed Cost \$ - (for Master Lock use)

Suggestions for Cost Saving or Design Improvements:

Supplier: _____ Reviewed by: _____ Date: _____

VII. Attachments / Enclosure:

- Preliminary Prints
- Engineering Specifications
- Preliminary Bill of Material
- Product Quality and MFG Process Requirements - see Quality Requirements worksheet
- Process & Equipment Information
- Confidentiality Agreement
- Prototypes / Samples
- Product CTQ characteristics marked on ML/ WI drawings

ECO#:	0
BCP#:	0
Request By:	0
Request Date:	0

I. Product Quality Requirements

Components	
<input checked="" type="checkbox"/>	Material Conformance <i>(certificate required)</i>
<input checked="" type="checkbox"/>	Appearance
<input checked="" type="checkbox"/>	Plating/ Coating Conformance <i>(certificate required)</i>
<input checked="" type="checkbox"/>	Heat Treat Conformance <i>(certificate required)</i>
<input checked="" type="checkbox"/>	Mechanical Properties Conformance <i>(test report required)</i>
<input checked="" type="checkbox"/>	FAIR Package [1] (5 samples measured per cavity)
<input checked="" type="checkbox"/>	Samples - 1 per cavity or as directed
<input type="checkbox"/>	Other:

Finished Goods	
<input checked="" type="checkbox"/>	Appearance
<input checked="" type="checkbox"/>	Workmanship
<input checked="" type="checkbox"/>	Functional
<input checked="" type="checkbox"/>	FAIR Package [1]
<input checked="" type="checkbox"/>	Performance <i>(test report required)</i>
<input checked="" type="checkbox"/>	Plating/ Coating Conformance <i>(certificate required)</i>
<input checked="" type="checkbox"/>	Corrsion Resistance, ISTA Package testing and Color matching
<input checked="" type="checkbox"/>	Samples - 2 each or as directed
<input type="checkbox"/>	Other:

II. Process Quality Requirements

<input checked="" type="checkbox"/>	Process Flow Chart
<input checked="" type="checkbox"/>	CTQ Review & Quality Plan
<input checked="" type="checkbox"/>	Process Control Plan
<input checked="" type="checkbox"/>	Visual Aid Boards
<input checked="" type="checkbox"/>	Gage Plan
<input checked="" type="checkbox"/>	Process Documents [QWI(s) IQC, IPQC, FQC, etc.]
<input checked="" type="checkbox"/>	Test Methods
<input checked="" type="checkbox"/>	Identify hold, witness and report points for special processes
<input type="checkbox"/>	Other:

III. Samples - Quality Requirements

<input checked="" type="checkbox"/>	Engineering Build Samples for Eng. Test = 25 [ML] and 2 [WI]
<input checked="" type="checkbox"/>	Random Pilot Samples for PPAP = 30 [ML] and 2 [WI]

[1] ML/ WI FAIR form, the marked up ML/ WI dwg & 1 of the measured samples per cavity.

NOTE: Requirements can only be removed or "unchecked" by Quality Department.