



Manufacturing Cost Estimation

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Cost Estimates for Item; Special Anniversary Bottle Opener 12345rev1

Date; 21/05/08 **Quotation No;** 322

Comprising

1 Level 1 Sub Assemblies
4 Child Parts
To Estimate Level 2

Data supplied by Client

Sample/prototype
Volume Per Year
Basic Material Type
Technology Requirements
Manufacturing Location

PPM Associates Ltd Standard Terms & Conditions Apply
The validity of the estimate is subject to the accuracy of the data supplied by the Client



Level 2 - Cost Estimate & Analysis Financial Gateway

Component Part No **Special Anniversary Bottle Opener
12345 rev1**

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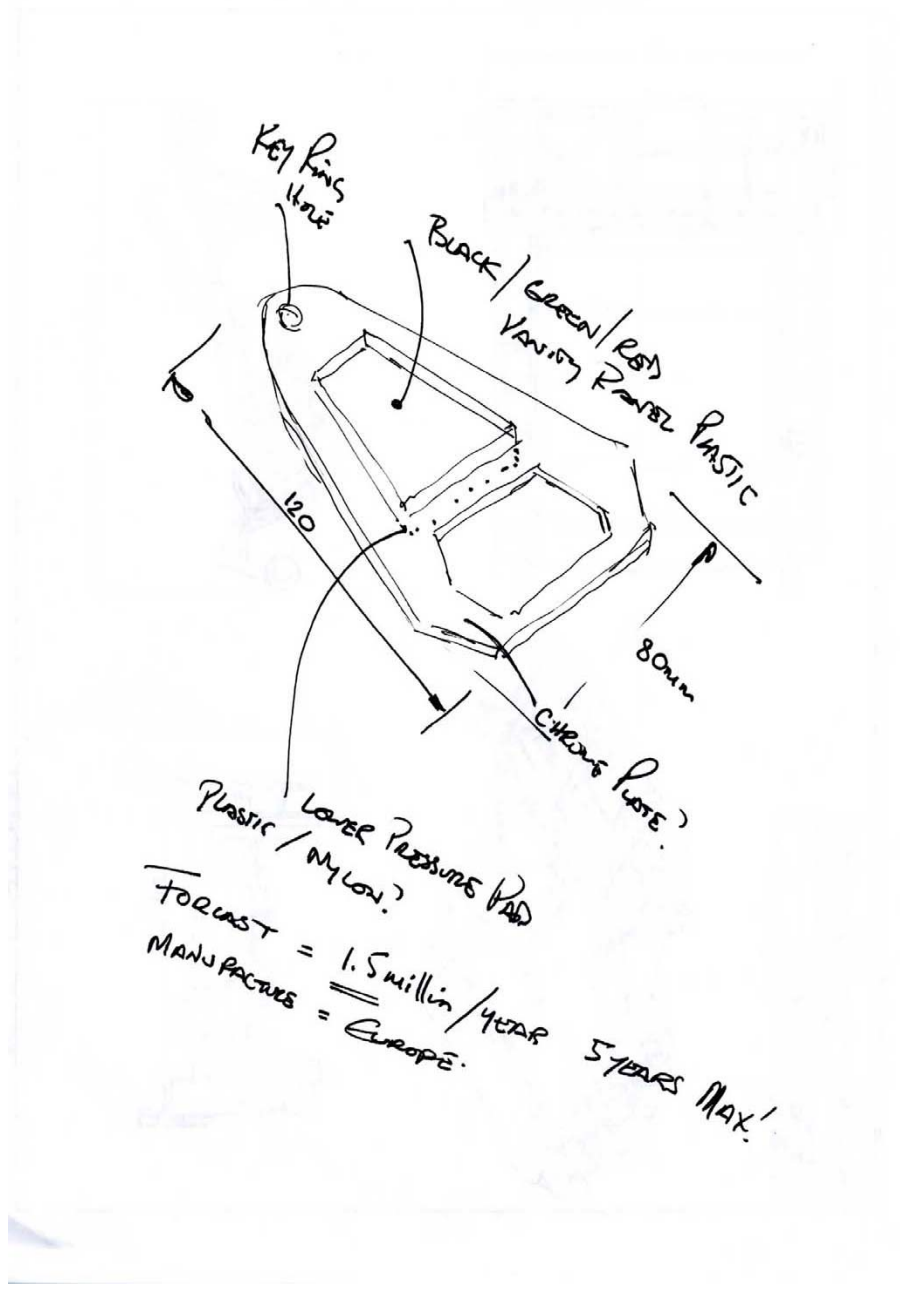
1. Executive Summary

The following report outlines the findings of the technical cost appraisal undertaken by PPM Ltd.

The findings and detail have been calculated from the information supplied, allied to the understanding of component requirements by the relevant estimating engineer.

- The final Level 2 estimate shows an ex works price of €1.020
- The component costs are as follows;
 - Vanity panel €0.241
 - Pressure plate €0.164
 - Pressing €0.279
 - Mechanical fix €0.063
 - Final assy €0.274
- The expectation on accuracy is +/- 5% on current process assumptions.
- Manufacturing process has been taken as 'Not Optimised'.
- No Tooling calculations have been made,
- Tooling estimation can be made for Financial analysis and gate way approval, but does not form part of the original scope of work.
- The major drivers are the assumption of European manufacture with one months stock rotation.

2. Product Data





3. Estimate Assumptions

1. Volume Assumption

1,500,000 Per annum
Batch Size TBA

2. Manufacturing Base

Europe

3. Component Assumptions

CR4, Chrome Plated
Coloured Panel, Plastic ABS
Pressure Pad Nylon Unfilled
Manual assembly, Balanced Line
M4 Screw fix

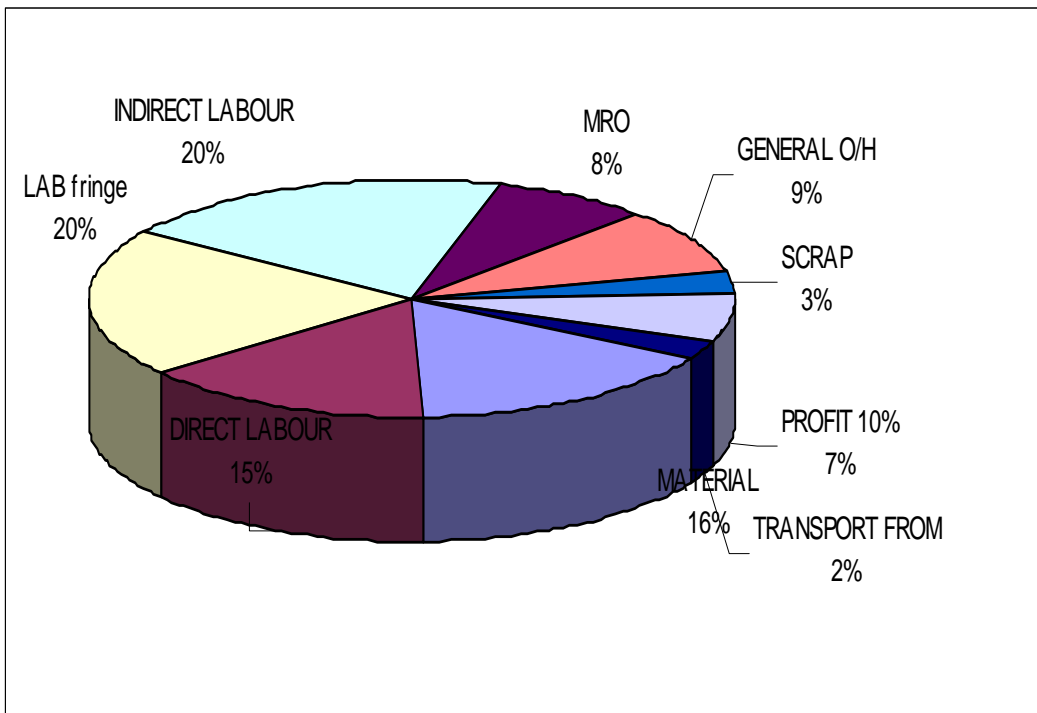
4. General

Profit 10%
Scrap 'Generic' 2%

Appropriate general process tolerances applied

4 .Cost Summary

COST SUMMARY	
MATERIAL	€0.166
DIRECT LABOUR	€0.151
LAB fringe	€0.210
INDIRECT LABOUR	€0.207
MRO	€0.080
GENERAL O/H	€0.094
SCRAP	€0.026
PROFIT 10%	€0.071
TRANSPORT FROM	€0.025
TOTAL	€1.020



5.Estimate Detail

PART NUMBER	BO F Assy	PART NUMBER	BO VP	PART NUMBER	BO F Assy	PART NUMBER	BO Con P	PART NUMBER	BOF
DESCRIPTION OF PART	Bottle Opener Final Assembly	DESCRIPTION OF PART	Bottle Opener VANITY PANEL	DESCRIPTION OF PART	Bottle Opener Pressure Plate	DESCRIPTION OF PART	Bottle Opener Pressing	DESCRIPTION OF PART	
		MATERIAL TYPE	ABS Granules (Black)	MATERIAL TYPE	Nylon	MATERIAL TYPE	CR 4	MATERIAL TYPE	Mechanical Fix
		MATERIAL REF	1291	MATERIAL REF	1320	MATERIAL REF	9	MATERIAL REF	
		MATERIAL COST	3552	MATERIAL COST	3848	MATERIAL COST	764	MATERIAL COST	
		UNITS	€ /T	UNITS	€ /T	UNITS	€ /T	UNITS	€
		MATERIAL COST /PART	0.07	MATERIAL COST /PART	0.05	MATERIAL COST /PART	0.14	MATERIAL COST /PART	0.05
		VOLUME PER ANUM	1500000	VOLUME PER ANUM	1500000	VOLUME PER ANUM	1500000	VOLUME PER ANUM	1500000
		BATCH SIZE	125000	BATCH SIZE	125000	BATCH SIZE	125000	BATCH SIZE	125000
OPERATION DESCRIPTION	Assemble Complete	OPERATION DESCRIPTION	Mould complete	OPERATION DESCRIPTION	Mould complete	OPERATION DESCRIPTION	Press and Plate Complete	OPERATION DESCRIPTION	
CYCLE TIME Mins	0.12446	CYCLE TIME Mins	0.41	CYCLE TIME Mins	0.78	CYCLE TIME Mins	0.06	CYCLE TIME Mins	
MACHINE RATE / HR	44	MACHINE RATE / HR	51	MACHINE RATE / HR	51	MACHINE RATE / HR	60	MACHINE RATE / HR	
Machine Efficiency	81%	Machine Efficiency	81%	Machine Efficiency	81%	Machine Efficiency	72%	Machine Efficiency	
Machine Type	ASSEMBLY FIXTURE, CONVEYOR METRES	Machine Type	500/100 LK 50 STR 225mm	Machine Type	500/100 LK 50 STR	Machine Type	150T BED 23*X32*	Machine Type	
	BENCH NO 2.10x1.00		PLTN 450x450mm SHT		225mm PLTN 450x450mm		MAX SHUT HT		
	Triple		YOL 49 88cc		SHT VOL 49 88cc		14.75 STR 4		
SHIFT PATTERN	Triple	SHIFT PATTERN	Triple	SHIFT PATTERN	Triple	SHIFT PATTERN	Triple	SHIFT PATTERN	Triple
TAKT Time	10.09	TAKT Time	10.09	TAKT Time	10.09	TAKT Time	10.09	TAKT Time	10.09
MEN ON OPERATION	2	MEN ON OPERATION	1	MEN ON OPERATION	0.5	MEN ON OPERATION	1	MEN ON OPERATION	
SKILL LEVEL	SEMI SKILLED	SKILL LEVEL	SEMI SKILLED	SKILL LEVEL	SEMI SKILLED	SKILL LEVEL	SEMI SKILLED	SKILL LEVEL	
SCRAP RATE	2%	SCRAP RATE	2%	SCRAP RATE	2%	SCRAP RATE	2%	SCRAP RATE	2%
PARTS PER OPERATION	1	PARTS PER OPERATION	4	PARTS PER OPERATION	4	PARTS PER OPERATION	1	PARTS PER OPERATION	
MATERIAL	0.000	MATERIAL	0.013	MATERIAL	0.034	MATERIAL	0.069	MATERIAL	0.05
DIRECT LABOUR	0.000	DIRECT LABOUR	0.066	DIRECT LABOUR	0.067	DIRECT LABOUR	0.018	DIRECT LABOUR	
LAB fringe	0.089	LAB fringe	0.053	LAB fringe	0.053	LAB fringe	0.014	LAB fringe	
INDIRECT LABOUR	0.071	INDIRECT LABOUR	0.060	INDIRECT LABOUR	0.060	INDIRECT LABOUR	0.016	INDIRECT LABOUR	
MRO	0.080	MRO	0.000	MRO	0.000	MRO	0.000	MRO	
GENERAL O/H	0.000	GENERAL O/H	0.023	GENERAL O/H	0.020	GENERAL O/H	0.052	GENERAL O/H	
SCRAP	0.004	SCRAP	0.004	SCRAP	0.005	SCRAP	0.003	SCRAP	0.01
PROFIT 10%	0.005	PROFIT 10%	0.022	PROFIT 10%	0.024	PROFIT 10%	0.017	PROFIT 10%	0.003
TRANSPORT FROM	0.025	TRANSPORT FROM	0.000	TRANSPORT FROM	0.000	TRANSPORT FROM	0.000	TRANSPORT FROM	
					0.262		0.191		
TOTAL	0.274	TOTAL	0.241	TOTAL	0.164	TOTAL	0.279	TOTAL	0.063