

HOW TO: Work Order Estimated Piece Cost Calculation

The Estimated Piece Cost calculation is calculated when the work order is released.

The screenshot displays a software window titled "Work Order" with a blue header. The window is divided into several sections: "Work Order", "Tracking/Scheduling/Miscellaneous", and "Costing". The "Work Order" section includes fields for Part No. (TEST987), Description, Due Date (02/05/2009), Sub Due (02/05/2009), Qty Fab (100), Sub Fab (100), and Date Stamp (02/05/2009). The "Costing" section shows various cost-related fields: Lab Costs (\$0.00), Purchases (\$0.00), Total Cost (\$0.00), Piece Cost (\$0.00), and Est Piece Cost (\$4.71). The Est Piece Cost field is highlighted with a red box. A red arrow points from the text above to this field. The "On Hand" field is highlighted in yellow. The "Est Piece Cost" field is also highlighted in yellow. The "Est Piece Cost" field is also highlighted in yellow. The "Est Piece Cost" field is also highlighted in yellow.

Date	Quantity	Cost	Router No.	Time

If a change is made to any of the fields the estimated cost on the work order itself is not updated. You would need to unrelease and then re-release the work order for it to be recalculated.

ESTIMATED PIECE COST CALCULATION

If you go to the Costing tab and click on the Costing Summary button the breakouts of the different categories of costs are shown.

Costing Summary

W.O. No.: 00000270 Part Number: TEST987

Quantity: 100

	%	Actual	Estimated	Variance
Hours :		0.00	4.16	4.16
Direct Labor :	0.00	\$0.00	\$48.62	\$48.62
Employee Overhead :	0.00	\$0.00	\$20.83	\$20.83
Work Center Overhead :	0.00	\$0.00	\$60.00	\$60.00
Material Costs :	0.00	\$0.00	\$150.00	\$150.00
Hardware Costs :	0.00	\$0.00	\$41.66	\$41.66
Outside Processing :	0.00	\$0.00	\$150.00	\$150.00
Products Costs :	0.00	\$0.00	\$0.00	\$0.00
Sales Commissions :	0.00	\$0.00	\$0.00	\$0.00
Profit :	100.00	\$200.80	\$-270.32	\$471.12
Sales Revenues :		\$200.80	\$200.80	

(Includes Commission)

Each Price : \$20.08

Each Cost : \$0.00

Each Profit : \$20.08

OK

Labor and Overhead

Direct Labor is calculated by taking the estimated hours for each sequence on the work order and multiplying it by the Average Employee Rate of that work center.

Example:

Graphing Display

Part Number: TEST987

Seq	Work Center	Quantity	Scrap Qty	Est/Hrs	Act/Hrs	Status	
1	ENGINEERING	0	0	0.50	0.00	Not Started	1942
2	LASER	0	0	1.17	0.00	Not Started	1943
3	PRESS BRAKE	0	0	0.83	0.00	Not Started	1944
4	OUTSIDE PROCESSING	0	0	0.00	0.00	Not Started	1945
5	HARDWARE INSERTION	0	0	1.42	0.00	Not Started	1946
6	PACKAGING	0	0	0.25	0.00	Not Started	1947

Summary/Detailed Tracking

On Hand : 0

W.I.P. : 100

Allocated : 10

Seq #	Workcenter	Estimated Hours	Avg. Employee Rate	Extended Labor Cost	Work Center Overhead	Extended Overhead Cost
1	Engineering	0.50	\$15.00	\$ 7.50	\$10.00	\$5.00
2	Laser	1.17	\$12.50	\$14.62	\$15.00	\$17.55
3	Press Brake	0.83	\$15.00	\$12.45	\$25.00	\$20.75
4	Outside Processing	0.00	\$0.00		\$0.00	
5	Hardware Insertion	1.42	\$8.50	\$12.07	\$10.00	\$14.20
6	Packaging	0.25	\$8.00	\$ 2.00	\$10.00	\$2.50
	Totals	4.16		\$48.62		\$60.00

Work Centers

Detail Machine Schedules

ID No.: 0060 Work Center: PRESS BRAKE Disabled

SU Rate: \$60.00 Department: FORMING Type: Sequence Hardware Material Outside Processing Assembly

Hourly Rate: \$60.00 Standard Scheduling Mode Force Finite Scheduling Force Infinite Scheduling

Hourly Overhead: \$25.00

Lag Time: 10.00

CAP Hours: 16

Monday Tuesday Wednesday Thursday Friday Saturday Sunday

Hours: Monday 8.00 Tuesday 8.00 Wednesday 8.00 Thursday 8.00 Friday 8.00 Saturday 0.00 Sunday 0.00

Monthly Payments: \$0.00 Sq. Ft Space: 3,000 Avg. Employee Rate: \$15.00

Monthly Miscellaneous: \$1,000.00 Mfg. Supplies: % Productivity: 80.00

Seq #	Workcenter	Estimated Hours	Employee Overhead Rate	Extended Overhead Cost
1	Engineering	0.50	\$5.00	\$2.50
2	Laser	1.17	\$5.00	\$5.84
3	Press Brake	0.83	\$5.00	\$4.14
4	Outside Processing	0.00	\$5.00	
5	Hardware Insertion	1.42	\$5.00	\$7.10
6	Packaging	0.25	\$5.00	\$1.25
	Totals	4.16		\$20.83

Rates Calculator

Work Center Rates & Analysis Employee Overhead Absorption Rate

Income Sheet 2000 PROJECTION

Revenue Dollars : \$0.00 Profit Dollars :

Total Direct Labor employees : 16 Total number of Hours per employee : 2080

Total Indirect Labor employees : 2 Average % Productivity per employee : 80.0%

Total Office employees : 4

Total Employees : 22 Total Active Employees : 20 Variance : -2

	Weekly	Monthly	Yearly
Total Direct Labor Hours :	640	2,773	33,280
Billable Direct Labor Hours :	512	2,218	26,624
Total Machine Hours :	676	2,929	35,152
Variance :	-164	-710	-8,528
Dollars to be Absorbed :	0.00		

Calculated Results Adjusted Rates **Current Rates**

Employee Hourly Overhead Rate : \$0.00 \$0.00 \$5.00

Update Update Employee OK

Material and Hardware

The Material calculation takes the accounting method that has been set in system parameters and uses the value in that costing method field for each Material and Hardware BOM item and multiplies the Quantity Required for the item in the WOBOM table.

Rout #	ID	Description	Stock Width	Stock Length	Status	Qty Req	Days Out	Part Wic
0000125	00008	CRS 16 GAGE (0.0598)	48.000	120.000	Released	3.000	1	10.000
0000125	00013	ANODIZE CLEAR	0.000	0.000	Released	100.000	0	0.000
0000125	00311	BSO 032-28	0.000	0.000	Released	400.000	0	0.000
0000125	00864	42 X 48 PALLET	0.000	0.000	Released	2.000	0	0.000
0000125	00865	18 X 10 X 10 CORRUGATED BOX	0.000	0.000	Released	7.000	0	0.000

Material Costs

Description	Stock Width	Stock Length	Quantity Required	Cost per Unit	Extended Cost
CRS 16 GAGE (0.0598)	48.00	120.00	3.000	\$50.00	\$150.00
		Total			\$150.00

Hardware Costs

Description	Quantity Required	Cost per Unit	Extended Cost
BSO 032-28	400.000	\$0.05	\$20.00
42 X 48 PALLET	2.000	\$11.95	\$23.90
18 X 10 X10 CORRUGATED BOX	7.000	\$0.86	\$6.02
Total			\$49.92

Outside Processing

Outside Processing is calculated by taking the Override Price field on the BOM item and multiplying it times the quantity to fabricate. If there is no value in the override price field the estimated cost will be zero.

The screenshot shows a software window titled "Outside Processing" with a blue header bar. The main content area has a light gray background. At the top, a cyan bar contains the text "ANODIZE CLEAR". Below this, the "Description" field is highlighted in green and contains "ANODIZE CLEAR". A red arrow points from the text above to this field. The "Quantity Required For W.O.:" field contains "100". The "Days Out:" field contains "0". The "Vend Ship:" field contains "EACH". The "Vend Sell:" field contains "EACH". The "Vend Unit:" field contains "1.0000000". The "Part Size:" field contains "0.000 X 0.000". The "Vendor:" field is empty. The "Sequence:" dropdown menu is set to "4 OUTSIDE PROCESSING". The "Override Price:" field is highlighted with a red box and contains "\$1.50". Below this field are two checkboxes: "Lot Price Override" and "Certifications Required", both of which are unchecked. At the bottom center, there is a button with a green checkmark and the text "OK".

Description	Quantity Required	Cost per Unit	Extended Cost
ANODIZE CLEAR	100.000	\$1.50	\$150.00
Total			\$150.00

Products Costs

Estimated product costs come from standard cost if the product attachment is set to "Pull".

Router Design

Routers | Workcenters | Attachments | Product

P.O. History | Where Used | P/N Status | Supply Demand | Invoice History | Attachments Used | P/N History

DAWES AND CRANE, INC.

Part No.: **1-TESTB** Rev: **BB**

	Standard Cost	Labor Std	Overhead Std	Material Std	Product Std	Established	Upper Cost Limit	Levels	Price
Standard Cost :	\$10.0000	\$0.0000	\$0.0000	\$0.0000	\$0.0000	/ /	\$0.0000	0	\$0.0000
Average Cost :	\$38.0000							0	\$0.0000
Last Cost :	\$10.0000							0	\$0.0000
On Hand :	50							0	\$0.0000
Allocated :	0							0	\$0.0000
W.I.P. :	25							0	\$0.0000

Costing Summary

W.O. No.: **00000368** Part Number: **1-TESTA**

Quantity: **10.000**

	%	Actual	Rework	Estimated	Variance
Hours :		0.00	0.00	0.46	0.46
Direct Labor :	0.00	\$0.00	\$0.00	\$6.45	\$6.45
Employee Overhead :	0.00	\$0.00	\$0.00	\$0.00	\$0.00
Work Center Overhead :	0.00	\$0.00	\$0.00	\$4.91	\$4.91
Material Costs :	0.00	\$0.00	\$0.00	\$86.04	\$86.04
Hardware Costs :	0.00	\$0.00	\$0.00	\$10.00	\$10.00
Outside Processing :	0.00	\$0.00	\$0.00	\$0.00	\$0.00
Products Costs :	0.00	\$0.00	\$0.00	\$100.00	\$100.00
Sales Commissions :	0.00	\$0.00	\$0.00	\$0.00	\$0.00
Profit :	0.00	\$0.00	\$0.00	\$-207.41	\$207.41
Sales Revenues :		\$0.00	\$0.00	\$0.00	\$0.00

(Includes Commission)

Each Price : **\$0.00**

Each Cost : **\$0.00**

Each Profit : **\$0.00**

OK