

### ABS Costing Income Statement CH Twelve

Egnatia Inc. Absorption-Costing Income Statement For the First Year of Operations		
Sales (Units Sold × Sale Price).....		\$XXX,XXX
Cost of goods sold (Units Sold × ABS COGS).....	\$XXX,XXX	
Less: Over Applied overhead*	X,XXX	
Gross profit.....		XXX,XXX
Less: Selling and administrative expenses**.....		XXX,XXX
** (Units sold × \$(x) unit =XX,XXX) + \$XXX,XXX fixed S&A=\$XXX,XXX		
Operating income.....		XXX,XXX

### Variable Costing Income Statement

Egnatia Inc. Variable-Costing Income Statement For the First Year of Operations		
Sales (### × \$\$\$).....		\$\$\$,\$\$\$
Variable cost of goods sold (### × \$\$\$).....	\$\$\$,\$\$\$	
Add: Underapplied variable overhead Given.....	\$,\$\$\$	(\$,\$\$\$)
Variable selling expense (### × \$\$).....		(\$,\$\$\$)
Contribution margin.....		\$\$\$,\$\$\$
Less:		
Fixed factory overhead (Calculated).....	\$,\$\$\$	
Selling and administrative expenses(given).....	\$\$\$,\$\$\$	
Operating income.....		\$\$\$,\$\$\$

Reconcile the difference between the two income statements.

=Fixed OH/Unit x Remaining units in inventory

=difference between to income statements

### Ch Sixteen

Harrison, Inc. Interim Standard Performance Report: Quality Costs For the Year Ended December 31, 2011			
	Actual Costs	Budgeted Costs	Variance
<b>Prevention costs:</b>			
Quality audits x #x \$,\$,\$,\$\$.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$
Vendor certification#x \$,\$,\$,\$	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$
Total prevention costs.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$
<b>Appraisal costs:</b>			
Product acceptance#x\$,\$,\$,\$	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$
Process acceptance #x x\$,\$,\$,\$	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ F
Total appraisal costs.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ F
<b>Internal failure costs:</b>			
Retesting \$,\$,\$,\$ x ##%.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ U
Rework\$,\$,\$,\$ x ##%.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ U
Total internal failure costs.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ U
<b>External failure costs:</b>			
Recalls \$,\$,\$,\$ x ##.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$
Warranty \$,\$,\$,\$ x ##%.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ U
Total external failure costs.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ U
Total quality costs.....	\$ \$,\$,\$,\$	\$ \$,\$,\$,\$*	\$ \$,\$,\$ U
Percentage of sales.....	%,%,%%	%,%,%%	%,%,%%

Calculate the budgeted costs for 2013 and prepare an interim quality performance report.

### The Taguchi Loss Function CH Sixteen

Given: Target Value (X) and K = \$X  
Unit No. Actual Diameter y - T (y - T)<sup>2</sup> k(y - T)<sup>2</sup>

### Taguchi Loss Function Ch Sixteen

QL Quality Loss

K c/d<sup>2</sup>

C Loss at the lower or upper spec limit

D Distance of limit from target value

Y Actual value of Quality

T Target Value of Quality

### Ch.Thirteen Ext. Linkages ABS Supplier Costing

	Wood	Gardner
<b>Purchase cost:</b>		
\$\$\$ × ###,###.....	\$\$\$,\$\$\$,\$\$	\$\$\$,\$\$\$,\$\$
\$\$\$ × #,###,###.....		
<b>Inspecting components:</b>		
\$\$,\$\$\$ × ##.....	\$\$,\$\$\$	\$\$,\$\$\$
\$\$,\$\$\$ × #,###.....		\$\$,\$\$\$
<b>Expediting work:</b>		
\$\$,\$\$\$ × ##.....	\$\$,\$\$\$	\$\$,\$\$\$
\$\$,\$\$\$ × #,###.....		\$\$,\$\$\$
<b>Reworking products</b>		
\$\$,\$\$\$ × ###.....	\$\$,\$\$\$	\$\$,\$\$\$
\$\$,\$\$\$ × #,###.....		\$\$,\$\$\$
<b>Warranty work:</b>		
\$\$,\$\$\$ × ###.....	\$\$,\$\$\$	\$\$,\$\$\$
\$\$,\$\$\$ × #,###.....		\$\$,\$\$\$
<b>Total supplier cost.....</b>	<b>\$\$\$,\$\$\$,\$\$</b>	<b>\$\$\$,\$\$\$,\$\$</b>
<b>Units supplied.....</b>	<b>+ ###,###</b>	<b>+ ###,###</b>
<b>Unit cost.....</b>	<b>\$ \$\$\$,\$\$*</b>	<b>\$ \$\$\$,\$\$*</b>

\*Rounded to the nearest cent.

Calculate the cost per component for each supplier, taking into consideration the costs of the quality-related activities and using the current prices and sales volume.

### Organizational Activities and Drivers

Structural Activities	Structural Cost Drivers
<i>Building Plants</i>	Number of plants, scale, degree of centralization
<i>Management Structuring</i>	Management style and philosophy
<i>Grouping Employees</i>	Number and type of work units
<i>Complexity</i>	Number of product lines, number of unique processes, # of unique parts, degree of complexity
<i>Vertically Integrating</i>	Scope, buying power, selling power
<i>Selecting and using processing technologies</i>	Types of process technologies experience
Executional Activities	Executional Cost Driver
<i>Using Employees</i>	Degree of involvement
<i>Providing Quality</i>	Quality management approach
<i>Providing Plant Layout</i>	Plant layout efficiency
<i>Designing and Producing Prod</i>	Product configuration
<i>Providing Capacity</i>	Capacity utilization

### Sales Mix Variances Ch.Twelve

[(Product 1 Act Units Sold – Product 1 Budget Units Sold) x (Product 1 Budget CM [Per Unit] - (Budget Avg Unit CM) + (Product 2 Act Units Sold – Product 2 Budget Units Sold) x (Product 2 Budget CM [Per Unit] - (Budget Average Unit CM)]

### Ch Thirteen Activity-Based Supplier Costing

	Smith Glass		Wolf Glass	
	Side	WS	Side	WS
<b>Adverse purchases:</b>				
\$\$\$ × ###.....	\$\$\$,\$\$\$		\$\$\$,\$\$\$	
\$\$\$ × ###.....		\$\$\$,\$\$\$		\$\$\$,\$\$\$
\$\$\$ × ###.....				\$\$\$,\$\$\$
<b>Returns:</b>				
\$\$\$ × ###.....	\$\$\$,\$\$\$			
\$\$\$ × ###.....		\$\$\$,\$\$\$		
\$\$\$ × ###.....				\$\$\$,\$\$\$
<b>Total costs</b>	<b>\$\$\$,\$\$\$</b>	<b>\$\$\$,\$\$\$</b>	<b>\$\$\$,\$\$\$</b>	<b>\$\$\$,\$\$\$</b>
<b>Units</b>	<b>+ \$\$\$,\$\$\$</b>	<b>+ \$\$\$,\$\$\$</b>	<b>+ \$\$\$,\$\$\$</b>	<b>+ \$\$\$,\$\$\$</b>
<b>Unit cost</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>
<b>Unit purchase cost</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>
<b>Total unit cost</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>	<b>\$ \$\$\$,\$\$</b>

Calculate the activity rates for assigning costs to suppliers

### Operational Activities and Drivers

Unit-Level Activities	Unit-Level Drivers
Grinding Parts	Grinding Machine Hours
Assembling Parts	Assembly Labour Hours
Drilling Holes	Drilling Machine Hours
Using Materials	Kilograms of Materials
Using Power	Number of Kwatt hours
Batch-Level Activities	Batch-Level Drivers
Setting up equipment	Number of Setups
Moving Batches	Number of Moves
Inspecting Batches	Inspection Hours
Reworking Products	Number of Defective Units
Product-Level Activities	Product-Level Drivers
Redesigning Products	# of change orders
Expediting	# of late orders
Scheduling	# of different products
Testing products	Testing Hours

### Examples of Quality Costs by Category

Prevention Costs	Appraisal (Detection) Costs
Quality Engineering	Inspection of Materials
Quality Training	Packaging Inspection
Recruiting	Product Acceptance
Quality Audits	Process Acceptance
Design Reviews	field Testing
Quality Circles	Continuing Supplier Verification
Marketing Research	
Prototype Inspection	
Vendor Certification	
Internal Failure Costs	External Failure Costs
Scrap	Lost Sales
Rework	Lost Market Share
Downtime (Defect-Related)	Customer Dissatisfaction
Reinspection	Ill Will
Retesting	Returns/Allowances
Design Changes	Recalls
Repairs	Warranties
	Discounts due to defects
	Product Liability
	Complaint Adjustment

