Budgets – D – Direct Materials

Accounting presentation created by
Rex A Schildhouse
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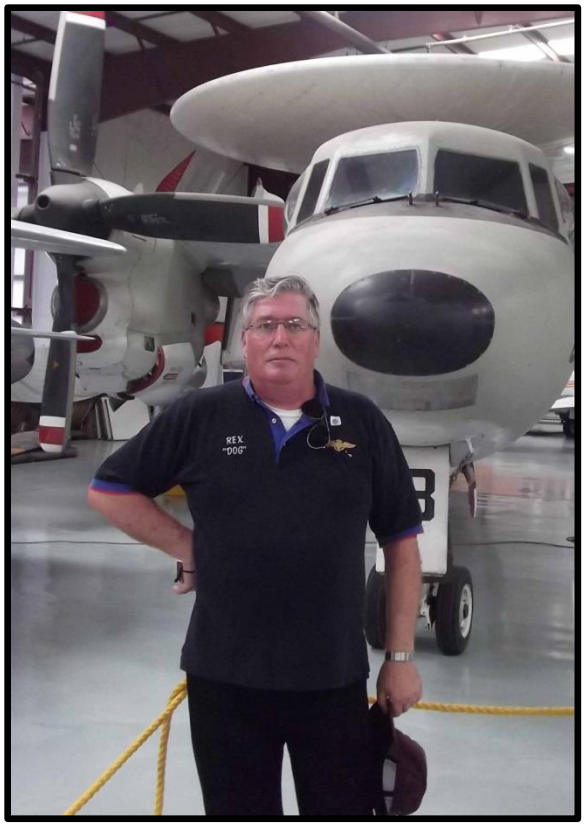
www.schildhouse.com



Budgets – D – Direct Materials

- There is an order to the costs associated with production – direct materials, direct labor, and Factory / Manufacturing Overhead (FOH / MOH).

Miramar Merchandising Services, Inc. Direct Materials Budget For the Quarter ending March 31, 2015				
	January	**February**	**March**	**Quarter**
Cases to be produced:	4,023	4,131	4,040	12,194
Pounds of DM per case:	5	5	5	5
Pounds needed for production:	20,113	20,656	20,200	60,969
Plus: Desired ending inventory	2,066	2,020	2,063	2,063
Total pounds needed:	22,178	22,676	22,263	63,031
Less: Pounds of beginning inventory:	2,011	2,066	2,020	2,011
Quantity to be purchased:	20,167	20,611	20,243	61,020
Cost per pound:	$2.25	$2.25	$2.25	$2.25
Total cost of purchase:	$45,375.47	$46,373.91	$45,545.63	$137,295.00

Budgets – D – Direct Materials

- Therefore, once production requirements are estimated, direct material needs are estimated.
- With this we need to know the bill of materials or "BOM" (bomb).

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Budgets – D – Direct Materials

- Units of measure are important and get easily confused and improperly integrated.
- Our product required 5 pounds of material for each case.
- Each pound of material costs $2.25.

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Budgets – D – Direct Materials

- Another textbook accounting fallacy, how many products do you know that are made from only one material?
- Even Whole Milk has more than one ingredient.

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Budgets – D – Direct Materials

- With the Production Budget telling us we need to produce 4,023 cases and each case takes 5 pounds we will need 20,113 pounds of material. (Rounded off by Microsoft Excel.)

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Budgets – D – Direct Materials

- Our setup tells us that we want 10% of the next month's production requirements as an ending balance.
- February requires 20,656 pounds so we want 2,066 pounds as an ending balance.

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Budgets – D – Direct Materials

- So the total pounds needed is (20,113 + 2,066) 22,178 pounds of materials.
- Less the beginning inventory of 2,011, 10% of our pounds needed for production, we need to purchase (22,178 – 2,011) 20,167 pounds.

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Cases to be produced:	4,023	4,131	4,040	12,194
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Plus: Desired ending inventory	2,066	2,020	2,063	2,063
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Budgets – D – Direct Materials

- Those 20,167 pounds are going to cost $2.25 each so we can expect purchases, cash or credit, of $45,375.47. (Rounded by Microsoft Excel.)

Miramar Merchandising Services, Inc.				
Direct Materials Budget				
For the Quarter ending March 31, 2015				
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Budgets – D – Direct Materials

- February works the same way.
- The beginning inventory comes from January's ending inventory.
- The ending inventory comes from March's needs of 20,200 pounds.

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Cases to be produced:	4,023	4,131	4,040	12,194
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Plus: Desired ending inventory	2,066	2,020	2,063	2,063
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Budgets – D – Direct Materials

- February needs 4,131 cases which consume 5 pounds per case, or 20,656 pounds.
- We need 2,020 pounds as an ending balance, March's 20,200 pounds × 10%.
- Therefore, total pounds needed is 22,676.

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Cases to be produced:	4,023	4,131	4,040	12,194
Pounds of DM per case:	5	5	5	5
Pounds needed for production:	20,113	20,656	20,200	60,969
Plus: Desired ending inventory	2,066	2,020	2,063	2,063
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Budgets – D – Direct Materials

- Reducing the 22,676 by the beginning balance, 20,656 × 10%, 2,066 pounds we need to purchase 20,611.
- At $2.25 per pound we can expect February's purchases to be $46,373.91.

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Budgets – D – Direct Materials

- It does get repetitive, March works the same way.
- Our setup information tells us that April's sales are expected to be 4,125 cases.
- 4,125 cases utilize (4,125 × 5 pounds per case) 20,625 pounds of materials.
- Therefore we need an ending balance of materials in March of (20,625 × 10%) 2,063 pounds rounded off.

Desired ending inventory is	10%	of the next month's production.	
January beginning inventory is		2,011	pounds.
April sales are expected to be		4,125	pounds.
Pounds used in each unit produced:		5	
Purchase price per pound:		$2.25	

Budgets – D – Direct Materials

- It does get repetitive, March works the same way.
- March's 4,040 cases need 20,200 pounds of materials.
- Plus the ending balance of 2,063 gives us a total of 22,263 pounds needed.

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Budgets – D – Direct Materials

- The total of 22,263 pounds needed is reduced by the beginning balance of 2,020 so we need to purchase 20,243 pounds.
- At $2.25 per pound our March purchases are expected to be $45,545.63.

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Budgets – D – Direct Materials

- The quarter values are sensitive to line labels.
- The Cases to be Produced, Pounds Needed for Production, Total Pounds Needed, Quantity to be Purchased, and Total Cost of Purchases are line totals.

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Cases to be produced:	4,023	4,131	4,040	12,194
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Budgets – D – Direct Materials

- The quarter values are sensitive to line labels.
- The Ending Inventory is for March only, the end of the quarter.
- The Beginning Inventory is for January only, the beginning of the quarter.

	January	February	March	Quarter
Cases to be produced:	4,023	4,131	4,040	12,194
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- Logic says look at the quarter values and make sure they make sense. If January and February are in the $45,000-$46,000 range, March would be suspect of error if it were in the $65,000 range.

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Budgets – D – Direct Materials

- Textbook accounting likes life simple. It is not.
- Not many products have only one element when it comes to materials.

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Budgets – D – Direct Materials

- The next recommended presentation is Budgets – E for Direct Labor, or
- Budgets – I for Cash Payments.
- This is a one step at a time process.
- Do not rush it.

Budgets – D – Direct Materials

The end.