

## PART A – Budget Schedules

### Heidegger Pty Ltd

#### Sales Budget

For the 3 months ended March

	Jan	Feb	Mar	Year
Percent of Annual Sales	20%	78%	2%	100%
Expected sales in units	5,600	21,840	560	28,000
Selling price per unit	\$ 3,630.00	\$ 3,630.00	\$ 3,630.00	\$ 3,630.00
Total Budgeted Sales	<u>\$ 20,328,000</u>	<u>\$ 79,279,200</u>	<u>\$ 2,032,800</u>	<u>\$ 101,640,000</u>

### Heidegger Pty Ltd

#### Schedule of Expected Cash Collections

For the 3 months ended March

	Jan	Feb	Mar	Year
Current month sales 55%	\$ 4,065,600	\$ 15,855,840	\$ 406,560	20,328,000
Prior month's sales 35%	79,279,200	15,855,840	61,837,776	158,558,400
Two months prior sales 9.5%	-	-	-	-
Total cash collections	<u>\$ 83,344,800</u>	<u>\$ 31,711,680</u>	<u>\$ 62,244,336</u>	<u>\$ 178,886,400</u>

### Heidegger Pty Ltd

#### Schedule of Expected Cash Collections

For the 3 months ended March

	Jan	Feb	Mar	Year
AR from November	-	-	-	-
AR from December	79,279,200	-	-	79,279,200
Jan	4,065,600	15,855,840	-	19,921,440
Feb	-	15,855,840	61,837,776	77,693,616
Mar	-	-	406,560	1,992,144
	<u>83,344,800</u>	<u>31,711,680</u>	<u>62,244,336</u>	<u>178,886,400</u>

### Heidegger Pty Ltd

#### Production Budget

For the 3 months ended March

	Jan	Feb	Mar	Year
Budgeted sales in units	5,600	21,840	560	28,000
Add desired ending inventory of finished goods	4,368	112	1,120	1,120
Total needs	9,968	21,952	1,680	29,120
Less beginning inventory of finished goods	1,120	4,368	112	1,120
Required production	<u>8,848</u>	<u>17,584</u>	<u>1,568</u>	<u>28,000</u>

**Heidegger Pty Ltd**  
**Manufacturing Overhead Budget**  
**For the 3 months ended March**

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Year</u>
Production in Units	8,848	17,584	1,568	28,560
Variable overhead rate per unit	<u>\$ 90.98</u>	<u>\$ 90.98</u>	<u>\$ 90.98</u>	<u>\$ 90.98</u>
Variable manufacturing overhead	<u>\$ 804,971</u>	<u>\$ 1,599,753</u>	<u>\$ 142,653</u>	<u>\$ 2,598,325</u>
Fixed manufacturing overhead:				
Maintenance	1,326,759	1,326,759	1,326,759	15,921,111
Property and business taxes	-	-	-	-
Supervisor Salaries	1,633,333	1,633,333	1,633,333	19,600,000
Depreciation	145,833	145,833	145,833	1,750,000
Rates & Utilities	120,517	120,517	120,517	1,446,200
Other	<u>583,333</u>	<u>583,333</u>	<u>583,333</u>	<u>7,000,000</u>
Total fixed manufacturing OH	<u>3,809,776</u>	<u>3,809,776</u>	<u>3,809,776</u>	<u>45,717,311</u>
Total manufacturing OH	4,614,747	5,409,529	3,952,429	48,315,636
Less prepaid property tax	-	-	-	-
Less prepaid insurance	120,517	120,517	120,517	1,446,200
Less amortization	<u>145,833</u>	<u>145,833</u>	<u>145,833</u>	<u>1,750,000</u>
Cash disbursements for manufacturing OH	<u>\$4,348,397</u>	<u>\$ 5,143,179</u>	<u>\$3,686,079</u>	<u>\$ 45,119,436</u>

**Heidegger Pty Ltd**  
**Direct Materials Budget - SAA (kilograms)**  
**For the 3 months ended March**

	<u>Jan</u>	<u>Feb</u>	<u>Dec</u>	<u>Year</u>
Units to be produced	8,848	17,584	1,568	28,560
Raw Materials needed per unit	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
Production needs	17,696	35,168	3,136	57,120
Add desired ending inventory	<u>21,101</u>	<u>538</u>	<u>10,618</u>	<u>10,618</u>
Total needs	38,797	35,706	13,754	67,738
Less beginning inventory	<u>10,618</u>	<u>21,101</u>	<u>1,882</u>	<u>10,618</u>
Raw materials to be purchased	28,179	14,605	11,872	57,120
Cost of SAA per kilogram	<u>\$ 42.00</u>	<u>\$ 42.00</u>	<u>\$ 42.00</u>	<u>\$ 42.00</u>
Total cost of purchases of SAA	<u>\$1,183,526</u>	<u>\$ 613,402</u>	<u>\$ 498,624</u>	<u>\$2,399,040</u>

**Heidegger Pty Ltd**

**Schedule of Expected Cash Disbursement for Purchases of Raw Material SAA  
For the 3 months ended March**

	Jan	Feb	Mar	Year
Current month's purchases	\$ 1,183,526	\$ 613,402	\$ 498,624	\$ 2,399,040
Prior month's purchases	-	-	-	-
Two month's prior purchases	-	-	-	-
Total cash disbursements for purchases of raw material	<u>\$ 1,183,526</u>	<u>\$ 613,402</u>	<u>\$ 498,624</u>	<u>\$ 2,399,040</u>

**Heidegger Pty Ltd**

**Schedule of Expected Cash Disbursement for Purchases of Raw Material SAA  
For the 3 months ended March**

	Jan	Feb	Mar	Year
A/P from November	-			-
A/P from December	-			-
Jan	1,183,526			1,183,526
Feb		613,402		613,402
Mar	-	-	498,624	498,624
	<u>1,183,526</u>	<u>613,402</u>	<u>498,624</u>	<u>2,295,552</u>

**Heidegger Pty Ltd**

**Direct Labour Budget**

**For the 3 months ended March**

	Jan	Feb	Mar	Year
Units to be Produced	8,848	17,584	1,568	28,560
Direct Labour time per unit (hours)	<u>4.00</u>	<u>4.00</u>	<u>4.00</u>	<u>4.00</u>
Total hours of direct labour time needed	35,392	70,336	6,272	114,240
Direct Labour cost per hour	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00
Total direct labour cost	<u>\$ 707,840</u>	<u>\$ 1,406,720</u>	<u>\$ 125,440</u>	<u>\$ 2,284,800</u>

**Heidegger Pty Ltd**

**Selling and Administrative Expense Budget  
For the 3 months ended March**

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Year</u>
Budgeted sales in units	5,600	21,840	560	28,000
Variable selling and administrative expense per unit	\$ 0.65	\$ 0.65	\$ 0.65	\$ 0.65
Variable expenses	\$ 3,640	\$ 14,196	\$ 364	\$ 18,200
Fixed selling and administrative expenses	44,580	44,580	44,580	534,960
Bad Debts	406,560	1,585,584	40,656	2,032,800
Warehouse rental	-	-	-	34,020,000
Total budgeted selling and administrative expenses	\$ 454,780	\$ 1,644,360	\$ 85,600	\$ 36,605,960
Less: non-cash items				
Bad debt expense	\$ 406,560	\$ 1,585,584	\$ 40,656	2,032,800
	<u>\$ 48,220</u>	<u>\$ 58,776</u>	<u>\$ 44,944</u>	<u>\$ 34,573,160</u>

Variable rate per unit:	<b>Total Costs</b>	<b>Units</b>
High	\$1,022,460	750,000
Low	\$ 778,710	375,000
Change	\$ 243,750	375,000

Variable rate per unit	\$ 0.6500
Fixed expenses per year	\$ 534,960

	Labour Hrs	Total Maintenance Cost
	675,500	\$41,440,000
	770,000	\$45,010,000
	707,000	\$42,630,000
	644,000	\$40,250,000
	2,796,500	\$169,330,000
hp	770,000	\$45,010,000
lp	644,000	\$40,250,000
variable rate	\$ 37.78	
Fixed cost	\$ 15,921,111.11	

**Heidegger Pty Ltd**  
**Ending Finished Goods Inventory Budget (Absorption Costing)**  
**For the 3 months ended March**

Item	Quantity	Cost/unit	Total
Production cost per unit:			
Direct materials:	2.00 kg.	42.00	84.00
Direct Labour	4.00 hr	20.00	80.00
Manufacturing overhead	1.00 unit	1,691.72	<u>1,691.72</u>
Unit product cost			<u><u>1,855.72</u></u>
Budgeted finished goods inventory:			
Ending finished goods inventory in units			1,120
Unit product costs (see above)			\$ <u>1,855.72</u>
Ending finished goods inventory in dollars			\$ <u><u>2,078,411</u></u>
Budgeted cost of goods sold:			
Beginning finished goods inventory			2,744,000
Plus cost of goods manufactured			52,999,476
Less: ending inventory			<u>2,078,411</u>
Budgeted cost of goods sold in dollars:			<u><u>53,665,066</u></u>

**Heidegger Pty Ltd**  
**Ending Finished Goods Inventory Budget (Variable Costing)**  
**For the 3 months ended March**

Item	Quantity	Cost/unit	Total
Production cost per unit:			
Direct materials:	2.00 cups	42.00	84.00
	3.00 vanes	56.00	168.00
Direct Labour	4.00 hr	20.00	80.00
Manufacturing overhead	1.00 unit	90.98	<u>90.98</u>
Unit product cost			<u><u>422.98</u></u>
Budgeted finished goods inventory:			
Ending finished goods inventory in units			1,120
Unit product costs (see above)			\$ <u>422.98</u>
Ending finished goods inventory in dollars			\$ <u><u>473,735</u></u>
Budgeted cost of goods sold:			
Beginning finished goods inventory			951,164
Plus cost of goods manufactured			12,080,245
Less: ending inventory			<u>473,735</u>
Budgeted cost of goods sold in dollars:			<u><u>12,557,674</u></u>

**Heidegger Pty Ltd**  
**Cash Budget**  
**For the 3 months ended March**

	Jan	Feb	Mar	Year
Cash balance, beginning	\$ 1,750,000	\$ 78,806,816	\$ 103,296,420	\$ 1,750,000
Add receipts:				
Collections from customers	<u>83,344,800</u>	<u>31,711,680</u>	<u>62,244,336</u>	<u>178,886,400</u>
Total cash available before financing	<u>85,094,800</u>	<u>110,518,496</u>	<u>165,540,756</u>	<u>180,636,400</u>
Less disbursements:				
Direct materials	1,183,526	613,402	15,053	2,399,040
Direct labour	707,840	1,406,720	35,840	2,284,800
Manufacturing overhead	4,348,397	5,143,179	3,584,184	45,119,436
Selling and administrative expenses	48,220	58,776	44,944	34,573,160
Tax remittance	-	-	-	-
Tax payable	-	-	-	-
Prepaid insurance	-	-	-	-
Prepaid property and business tax	-	-	-	-
Capital asset purchases	-	-	-	204,300
Dividend payment	-	-	-	-
Total disbursements	<u>6,287,984</u>	<u>7,222,077</u>	<u>3,680,021</u>	<u>84,580,736</u>
Excess (deficiency) of cash available over disbursements	<u>78,806,816</u>	<u>103,296,420</u>	<u>161,860,735</u>	<u>96,055,664</u>
Financing:				
Borrowing (at the beginning of the month)	-	-	-	-
Repayment (at the end of the month)	-	-	-	-
Interest expense (paid monthly)	-	-	-	-
Total financing	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Cash balance, ending	<u>\$ 78,806,816</u>	<u>\$ 103,296,420</u>	<u>\$ 161,860,735</u>	<u>\$ 96,055,664</u>

**Heidegger Pty Ltd**  
**Budgeted Income Statement**  
**For the 3 months ended March**

Sales	\$ 101,640,000
Cost of goods sold	<u>53,665,066</u>
Gross Margin	47,974,934
Less:	
Selling & administrative expenses	<u>36,605,960</u>
Net operating income	11,368,974
Less: Interest expense	<u>-</u>
Net income before taxes	11,368,974
Income taxes	<u>-</u>
Net Income	<u>\$ 11,368,974</u>

**Heidegger Pty Ltd**  
**Budgeted Statement of Retained Earnings**  
**For the 3 months ended March**

Retained earnings beginning of year	\$	83,219,139
Plus: Net Income		11,368,974
Sub-total		<u>94,588,114</u>
Less: Dividends declared		-
Retained earnings end of year	\$	<u><u>94,588,114</u></u>

**Heidegger Pty Ltd**  
**Budgeted Balance Sheet**  
**December 31, 2008**

<b>Assets</b>		
Cash	\$	96,055,664
Accounts Receivable		-
Inventory: Raw Materials		445,939
Inventory: Finished goods		2,078,411
Prepaid Insurance		(1,446,200)
Prepaid Property and Business Tax		-
Capital assets (net)		<u>(1,545,700)</u>
Total Assets	\$	<u><u>95,588,114</u></u>
<b>Liabilities and Shareholders' Equity</b>		
<b>Liabilities</b>		
Bank Loan Payable	\$	-
Accounts payable		-
Income taxes payable		-
Total Liabilities		<u>-</u>
<b>Shareholders' Equity</b>		
Capital stock		1,000,000
Retained earnings		<u>94,588,114</u>
Total Shareholders' equity		<u>95,588,114</u>
Total Liabilities & Shareholders' Equity	\$	<u><u>95,588,114</u></u>

**Heidegger Pty Ltd**  
**Budgeted Income Statement**  
**For the 3 months ended March**

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Sales		\$ 101,640,000
Less: Variable costs		
Variable cost of goods sold	12,557,674	
Variable selling & admin expenses	<u>18,200</u>	<u>12,575,874</u>
Contribution Margin		89,064,126
Less: Fixed costs		
Manufacturing overhead	45,717,311	
Selling & administrative expenses	<u>36,587,760</u>	<u>82,305,071</u>
Net operating income		6,759,054
Less: Interest expense		<u>-</u>
Net income before taxes		6,759,054
Income taxes		<u>-</u>
Net Income		<u>\$ 6,759,054</u>



### **PART B – Report addressing the Sales Manager's concerns**

Capacity is one of the most significant measures of resources used in production (Batkovskiy et al., 2016). The usage of conventional parameters frequently results to wrong decisions. There are three features of the problematic conventional capacity measures which consists of the absence of economic content, quantity-based approach, and the excessively high emphasis placed on technical processes (Garcia, 2015). If capacity measures could overcome the problems discussed above, i.e. if the value of resources can be included, and the costs of unused capacity can be referred to, then better decisions could be achieved in many cases. The conventional capacity measures exclude the equipment value in the production system. Hence, their application can result to inaccurate operations management decisions. A new measure, the 'cost of unused capacity', is more often used to describe resource usage. The investment in the new manufacturing capacity means low manufacturing capacity utilization suggests there is weak reason to be wary about bottlenecks, shortages, and rising prices. This means that risks of inflation is extremely low and the organisation has the capital to meet the demand. Flexible manufacturing systems (FMS), where the machining methods, machine tools, handling equipment, control systems and computer systems are used in an integrated way, become rather complex. Under these circumstances the process of production planning turns into a more complicated one, and as a consequence of the high value of the resources the drive for decreased cost of unused capacity is significant. A linear programming model was formulated with the aim of taking into consideration the cost of unused capacity. The model makes it possible to take into account the unused capacities of various machines in different degrees, while increasing the contribution at the same time. If the cost of unused capacity is considered in capacity planning, the idle time of valuable resources can be exploited more efficiently (Chien et al., 2015).

**PART C – Behavioural and communication issues related to budgeting and performance evaluation**

Budgets are part of management control intended to encourage the efficient usage of resources (Schick, 2015). The scope of success to any budget relies on the employee acceptance and attitudes. Budgeting is fundamentally a process of planning and control. It prompts the management to look ahead, establish detailed plans for reaching specific departmental targets and operations. It clearly defines areas of responsibility, provides a basis for variance analysis, and also deals with management related functions such as communication, coordination of activities and implementation of plans (Chen, 2017). More importantly, budgets provide a basis for performance evaluation. Through the measurement of success in meeting specific targets, bonuses can be received periodically, or promotions obtained. Hence, the budget delivers a useful method of appraising managers on their performance, linked with objectives and targets.

An imposed or top-down budgetary approach is supportive of the autocratic style of leadership whereby solely the top management can make decisions with regards to the budget (Raghunandan et al., 2012). This approach assigns only the responsibility of the execution to the lower level management. An imposed budget forecast approach does not allow input from employees are directly affected by the process (Kramer and Hartmann, 2014). This can result to the possibility that the employees feel that they are unimportant and overlooked by the management (Brunsson, 2017). It can be perceived that the management is only concerned with meeting budgetary goals regardless of employee well-being. The bond between the organization and its employees may weaken.

For Heidegger Pty Ltd, the imposed budgetary approach can set the organization's tone as expected sales and targeted production activity are established. It can promote a lean structure, serving as an effective communication tool to convey messages and guide employee performance. Nevertheless, the approach can create resentment and possibly present ethical dilemmas due to lower-level managers continually being pressures to achieve unrealistic goals for their units.

On another hand, a participative budgetary approach, or bottom-up budget, advocates the democratic style of leadership whereby lower level management is empowered through their contribution to the budget (Raghunandan et al., 2012). Top management may start the budget process with general budget guidelines, but it is the lower-level units which steer the advancement of budgets for their particular units. The individual budgets are then grouped and regrouped to form a divisional budget with mid-level executives adding their input along the way. Had the budget been prepared in a participative approach, the production manager can benefit from higher staff morale and employee job satisfaction. Budget systems developed with the participative budgetary approach can garner more support from workers and managers. However, this approach does not lead to an optimal use of resources as there is considerable slack. The approach takes time and substantial resources to develop and execute. The coordination between managers in Heidegger Pty Ltd can be hampered, as processes can be repetitive, which gives a higher chance of error and inefficiency.

## References

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