## Budget Preparation

## Editorial

Last month I commenced a theme of managerial finance with an article on Planning for Profit.

This month sees the first of a series of case studies to aid your continuing professional development. These will be based on an SME with a turnover of approximately $£ 3.2 \mathrm{~m}$ per year and profits of $£ 350,000$. It has an investment of $£ 1.8 \mathrm{~m}$.

Once again enjoy your reading.
Dr Philip Dunn

Editor

## Budget Preparation

Castout Ltd manufactures sea fishing rods. It has three main products, $\mathrm{H} 1, \mathrm{H} 2$ and H 3 . The information below relates to their plans for three months ended 31 March 2006.

## Sales and Finished Stocks

|  | Product |  |  |  |
| :--- | :--- | ---: | ---: | ---: |
|  |  | H1 | H2 | H3 |
| Sales Units | Jan | 1,200 | 950 | 1,300 |
|  | Feb | 1,350 | 1,150 | 1,230 |
|  | Mar | 1,350 | 1,150 | 1,300 |
| Opening Stock | 1 Jan | 1,300 | 1,150 | 1,250 |
| Selling Prices | 31 Mar | 1,500 | 1,300 | 1,350 |
|  |  | $£ 80$ | $£ 68$ | $£ 70$ |

Standard Labour Specification (standard hours per unit)
Cost Centre

|  |  | C100 | C110 | C120 | Total |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Product | H1 | 2.5 | 2.0 | 0.5 | 5.0 |
|  | H2 | 2.8 | 1.2 | 0.5 | 4.5 |
|  | H3 | 2.2 | 2.0 | 0.3 | 4.5 |

Standard rate per hour £7
Standard Material Specification
(material common to all three products) Product

|  | Product |  |  |
| :--- | :--- | :---: | :---: |
|  | H1 | H2 | H3 |
| Units of material per unit of output | 1.5 | 1.25 | 1.3 |
| Cost per unit of material: $£ 12$ |  |  |  |
| Projected stock of material | 1st January | 5,000 units |  |
|  | 31st March | 5,100 units |  |

## Overheads

|  | Cost Centre |  |  |
| :---: | :---: | :---: | :---: |
|  | C100 | C110 | C120 |
| Variable Production Overhead | £37,500 | £25,600 | £15,200 |
| Fixed Production Overhead (allocated/apportioned) | £25,800 | £16,700 | £9,900 |
| Other |  |  |  |
| Admin selling and distribution |  |  | £52,000 |

You are required to prepare the following Budget Report for Castout Ltd for the quarter ended 31 March 2006.
(a) Sales and budget - showing colume and value
(b) Production budget (units)
(c) Material usage budget (units)
(d) Marterial purchases budget (value)
(e) Labour budget
(f) Overhead budget to determine fixed and variable overhead recovery rates for the period
(g) Finished stock budget (units and valuation)
(h) Budget operating statement for period

## Castout

Budget Report for the Quarter Ended 31 March 2006
(a) Sales budget (by volume and value)

|  | Product |  |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  | H1 | H2 | H3 |  |
| Jan | 1,200 | 950 | 1,300 |  |
| Feb | 1,350 | 1,150 | 1,230 |  |
| Mar | 1,350 | 1,150 | 1,300 |  |
| Units | 3,900 | 3,250 | 3,830 |  |
| Selling price by unit | £80 | £68 | £70 |  |
| Turnover | £312,000 | 221,000 | $\underline{£ 268,100}$ | £801,100 |
| (b) Production budget | Product |  |  |  |
|  | H1 | H2 | H3 |  |
| Sales (a) | 3,900 | 3,250 | 3,830 |  |
| Closing stock projection | 1,500 | 1,300 | 1,350 |  |
|  | 5,400 | 4,550 | 5,180 |  |
| Less: Opening stock projection | 1,300 | 1,150 | 1,250 |  |
| Production (units) | 4,100 | 3,400 | 3,930 |  |
| (c) Material usage budget (units) |  |  |  |  |
| Material common to all products |  |  |  |  |
|  | Product |  |  |  |
|  | H1 | H2 | H3 | Total |
| Production (b) | 4,100 | 3,400 | 3,930 |  |
| Material usage per unit of output | 1.5 | 1.25 | 1.3 |  |
| Material usage | 6,150 | 4,250 | 5,109 | 15,509 |
| (d) Material puchases budget (units and value) |  |  |  |  |
| Material usage (c) | 15,509 |  |  |  |
| Closing stock projection | 5,100 |  |  |  |
|  | 20,609 |  |  |  |
| Opening stock projection | 5,000 |  |  |  |
| Purchases (units) | 15,609 |  |  |  |
| Standard purchase price per unit of material | £12 |  |  |  |
| Purchases | £187,308 |  |  |  |

(e) Direct labour budget

Standard hours required per cost centre

| Product | Production (b) | C100 |
| :--- | :--- | ---: |
| H1 | 4,100 | 10,250 |
| H2 | 3,400 | 9,520 |
| H3 | 3,930 | 8,646 |
| Hours | $\underline{28,416}$ |  |
| Direct Labour Cost (@ $£ 7 / \mathrm{hr})$ | $\underline{£ 198,912}$ |  |
| (f) Production Overhead Budget |  |  |


| Cost Centre |  |  |
| ---: | ---: | ---: |
| C110 | C120 | Total |
| 8,200 | 2,050 | 20,500 |
| 4,080 | 1,700 | 15,300 |
| $\underline{7,860}$ | $\underline{1,179}$ | $\underline{17,685}$ |
| $\underline{20,140}$ | $\underline{4,929}$ | $\underline{53,485}$ |
| $\underline{£ 140,980}$ | $\underline{〔 34,583}$ | $\underline{374,395}$ |

(f) Production Overhead Budget

Standard hours (e)
Varible overhead
Varible overhead recovery rate
Fixed overhead
Fixed overhead recovery rate

| Cost Centre |  |  |  |
| :---: | ---: | ---: | :--- |
| C100 | $\mathbf{C 1 1 0}$ | $\mathbf{C 1 2 0}$ | Total |
| $\mathbf{2 8 , 4 1 6}$ | 20,140 | 4,929 |  |
| $\mathbf{£}$ | $\boldsymbol{£}$ | $\boldsymbol{£}$ |  |
| 37,500 | 25,600 | 15,200 | 78,300 |
| 1.32 | 1.27 | 3.08 |  |
| 25,800 | 16,700 | 9,900 | 52,400 |
| 0.91 | 0.83 | 2.01 |  |

(g) Finished stock budget

Here we need to determine the standard cost for unit for each product. The stock will be valued at production cost.

Direct labour (note 1)
Direct material (note 2)
Variable overhead (note 3)
Fixed overhead (note 4)

| Product |  |  |
| :---: | :---: | :---: |
| $\mathbf{H 1}$ | $\mathbf{H 2}$ | $\mathbf{H 3}$ |
| $\mathbf{E}$ | $\boldsymbol{E}$ | $\boldsymbol{E}$ |
| 35.00 | 31.50 | 31.50 |
| 18.00 | 15.00 | 15.60 |
| 7.38 | 6.76 | 6.37 |
| 4.94 | $\underline{4.55}$ | $\underline{4.26}$ |
| $\mathbf{6 5 . 3 2}$ | $\underline{57.81}$ | $\underline{57.73}$ |

```
Notes:
1 \text { Example calculation:}
H1 Total standard labour hours per unit = 5.0 (given) @ £7/hr = £35.00
2 Example calculation:
H1 Units of material per unit = 1.5 (given) @ £12/unit = £18.00
3 Example calculation:
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|  | Cost Centre |  |  | C120 | Total |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Standard hours per unit | C100 | C110 | 2.5 |  | 0.5 |
| Varible overhead recovery rate (f) | $£ 1.32$ | $£ 1.27$ | $£ 308$ |  |  |
| Varible overheads recovered | $£ 3.30$ | $£ 2.54$ | $£ 1.54$ | $£ 7.38$ |  |

4 as for variable overheads (note 3 ) using fixed overhead recovery rates from (f)

Finished stock valuation
Opening stock
Closing stock
(h) Budgeted Operating Statement for Quarter Ended 31 March 2006

Sales (a)
Opening stock raw materials (@ £12)
Add purchases (d)
Less: closing stock raw materials (@ £12)
Cost of raw materials used
Direct labour (e)
Varible overhead (f)
Fixed overhead (f)
Cost of production
Opeing stock of finished goods (g)
Closing stock of finished goods (g)
Finised goods stock adjustment
Cost of goods sold
Gross profit
Admin, selling and distribution costs
Net profit for period
H3
$\mathbf{£}$
72,163
77,936

77,936

## E

## Total

£
223,561
251,069

## E

801,100
60,000
187,308
247,308
61,200
186,108
374,395
78,300
52,400
691,203
223,561
251,069
$(27,508)$
663,695
137,405
52,000
£85,405

