

Master Budgeting Exercise

Case: SmartBottle Company

SmartBottle Company manufactures reusable smart water bottles. The company is preparing its master budget for July. The management accountant has collected the following information.

Sales data

Month	Budgeted sales in units
June	8,000
July	10,000
August	12,000
September	9,000

The selling price is € 30 per unit. All sales are on account. The company collects 70% of sales in the month of sale and 30% in the following month. The accounts receivable balance on June 30 is € 72,000, which will be collected in July.

Finished goods inventory

Management wants ending finished goods inventory to be equal to 20% of the following month's budgeted unit sales. On June 30, finished goods inventory is 2,000 units.

Direct materials

Each bottle requires 3 kilograms of raw material. Raw material costs EUR 2 per kilogram. Management wants ending raw materials inventory to be equal to 10% of the following month's production needs. On June 30, raw materials inventory is 3,120 kilograms.

Payment for materials

The company pays for raw materials as follows: 60% in the month of purchase and 40% in the following month. The accounts payable balance on June 30 is €22,000, which will be paid in July.

Direct labor

Each bottle requires 0.5 direct labor-hours. The direct labor rate is €16 per direct labor-hour. All direct labor costs are paid in the month incurred.

Manufacturing overhead

Manufacturing overhead is budgeted as follows: variable manufacturing overhead is € 4 per direct labor-hour; fixed manufacturing overhead is € 40,000 per month, including € 8,000 of depreciation. All cash manufacturing overhead costs are paid in the month incurred.

Selling and administrative expenses

Selling and administrative expenses are budgeted as follows: variable selling and administrative expenses are € 2 per unit sold; fixed selling and administrative expenses are € 35,000 per month, including € 5,000 of depreciation. All cash selling and administrative expenses are paid in the month incurred.

Asset investment and financing

SmartBottle plans to purchase a new packaging machine in July for € 75,000. The machine will be installed in August; therefore, July's budgeted income statement includes no depreciation for this new machine. The company has a beginning cash balance on July 1 of € 20,000. Management wants to maintain a minimum ending cash balance of € 30,000. If necessary, the company can borrow from the bank at the beginning of July. Borrowings must be in multiples of € 1,000. Interest is 1% per month and is paid at the end of the month.

Required

1. Prepare the sales budget for July.
2. Prepare the schedule of expected cash collections for July.
3. Prepare the production budget for July.
4. Prepare the direct materials budget for July.
5. Prepare the schedule of expected cash disbursements for materials for July.
6. Compute the direct labor cost for July.
7. Compute the manufacturing overhead budget for July, distinguishing between total overhead and cash overhead.
8. Compute the selling and administrative expense budget for July, distinguishing between total expenses and cash expenses.
9. Prepare the cash budget for July, including the investment in the new packaging machine and the required bank borrowing.