

Aufgabe QR-12.6 Process Costing (Process Costing)

Die LAUPENDAHL AG ist im Backwarengeschäft. Sie stellt Brote in zwei Produktionsschritten her: (1) Teigvorbereitung und (2) Backen. Der gesamte Prozess ist als ein Process Costing organisiert, was bedeutet, dass alle Brote zuerst durch die Teigvorbereitungsabteilung und anschließend durch die Backabteilung gehen. Im Januar 20X5 gab die LAUPENDAHL AG 13.500,00 EUR für Material aus (bar gezahlt). Alle Einkäufe wurden zu Beginn des Produktionsprozesses aufgebraucht, was bedeutet, dass sie dem Teigvorbereitungs-WIP-Konto belastet wurden. Die Löhne im Januar 20X5 betrugen 10.000,00 EUR und sind aufgesplittet entsprechend des Verhältnisses 6 : 4 auf die Abteilungen Teigvorbereitung : Backen. Abschreibung ist nur für die Backabteilung relevant und beträgt 11.500,00 EUR. Der Meisterlohn ist auf die Produktion bezogen. Der Betrag von 5.000,00 EUR wird zwischen den Abteilungen aufgesplittet im Verhältnis 50 : 50. Alle Aufwendungen werden im Januar 20X5 bar gezahlt oder überwiesen. Nach Abschluß der Teigvorbereitung werden alle ungebackenen Brote zum Backen übertragen. Nach dem Backen werden alle Brote in das Lager gebracht (Fertigwarenlager). 90 % aller Brote wurden im Januar 20X5 verkauft. Die Restmenge (10 %) bleibt am Lager. Der Verkaufspreis für Brot beträgt 300 % der Herstellungskosten. Die Brote werden bar verkauft.

Neben dem Produktionsprozess bestehen 20.000,00 EUR Aufwand für Unternehmensführung und Verwaltung. Der Betrag wird bar bezahlt.

Gefragt: Erstellen Sie eine Gewinn- und Verlustrechnung nach dem Gesamtkosten- und nach dem Umsatzkostenverfahren. Ignorieren Sie die Umsatzsteuer. Der Gesamtsteuersatz für Einkommensteuer beträgt 30 %.

English Version:

LAUPENDAHL Ltd. is in the bakery business. They produce bread in two production steps: (1) Dough Preparation and (2) Baking. The whole process is organized as a process costing which means all breads go first through the Dough Preparation department and then through the Baking department. In January 20X5 LAUPENDAHL spent 13,500.00 EUR for materials (paid on cash). All Purchases are used up at the beginning of the production process which means they are charged to the Dough Preparation WIP account. Labour amounts in January 20X5 to 10,000.00 EUR and is split up at a ratio of 6 : 4 to the departments Dough Preparation : Bakery. Depreciation only is relevant in the Bakery department and amounts to 11,500.00 EUR. Supervisor's salary is linked to production. The amount 5,000.00 EUR gets split up at a ratio 50 : 50 between the two departments. All expenses are paid on cash or via bank transfer in January 20X5. After completion of the dough preparation all unbaked breads are transferred to the bakery. After baking all breads are transferred to the storage (Finished Goods Inventory). 90% of all breads produced were sold in January 20X5. The remaining amount (10%) stays on stock. The sales price for bread is 300% of the cost of sales. The bread is sold on cash.

Besides of the production process there are 20,000.00 EUR expenses for management and administration. The amount is paid on cash.

Required: Prepare a statement of comprehensive income for January 20X5 along the nature of expense method and (!) along the cost of sales format. Ignore VAT. Total income tax rate is 30%.

Lösung (Solution)

(1) Purchase of materials 13,500.00 EUR:

| | |
|---------------------------|---------------|
| DR Purchase | 13,500.00 EUR |
| CR Cash/Bank | 13,500.00 EUR |

(2) Transfer materials to the Dough Prep department

| | |
|--------------------------------|---------------|
| DR WIP-Dough-Prep | 13,500.00 EUR |
| CR Purchase | 13,500.00 EUR |

(3) Payment for labour 10,000.00 EUR

| | |
|---------------------------|---------------|
| DR Labour | 10,000.00 EUR |
| CR Cash/Bank | 10,000.00 EUR |

(4, 5) Charge departments by labour

| | |
|--------------------------------|---------------|
| DR WIP-Dough-Prep | 6,000.00 EUR |
| DR WIP-Bakery | 4,000.00 EUR |
| CR Labour | 10,000.00 EUR |

(6) Depreciation on Bakery department 12,000.00 EUR:

| | |
|----------------------------|---------------|
| DR Depr. | 11,500.00 EUR |
| CR Acc. Depr. | 11,500.00 EUR |

(7) Charging Bakery department by depreciation

| | |
|----------------------------|---------------|
| DR WIP-Bakery | 11,500.00 EUR |
| CR Depr. | 11,500.00 EUR |

(8) Payment for supervisor's salary 5,000.00 EUR

| | |
|-------------------------------------|--------------|
| DR Supervisor's salary | 5,000.00 EUR |
| CR Cash/Bank | 5,000.00 EUR |

(9, 10) Charging department accounts by supervisor's salary at a ratio half : half

| | |
|-------------------------------------|---------------------|
| DR WIP-Dough-Prep | 2,500.00 EUR |
| DR WIP-Bakery | 2,500.00 EUR |
| CR Supervisor's salary | 5,000.00 EUR |

(11) Transfer dough-prepared breads from Dough-Prep department to Bakery department. Cost for unfinished breads: $13,500 + 6,000 + 2,500 = 22,000.00$ EUR.

| | |
|--------------------------------|----------------------|
| DR WIP-Bakery | 22,000.00 EUR |
| CR WIP-Dough-Prep | 22,000.00 EUR |

(12) After baking bread breads are transferred to the Finished Goods Inventory account. Valuation of finished breads is: $4,000 + 11,500 + 2,500 + 22,000 = 40,000.00$ EUR.

| | |
|------------------------------|----------------------|
| DR FG-Inventory | 40,000.00 EUR |
| CR WIP-Bakery | 40,000.00 EUR |

(13) Breads sold are charged to the C.O.S. account. The amount is $90\% \cdot 40,000 = 36,000.00$ EUR.

| | |
|------------------------------|----------------------|
| DR C.O.S. | 36,000.00 EUR |
| CR FG-Inventory | 36,000.00 EUR |

(14) Sales of breads which cost 36,000.00 EUR at 300 % of cost of sales: $3 \cdot 36,000 = 108,000.00$ EUR.

| | |
|---------------------------|-----------------------|
| DR Cash/Bank | 108,000.00 EUR |
| CR Sales | 108,000.00 EUR |

(15) Expenses for management and administration 20,000.00 EUR

| | |
|---------------------------------|----------------------|
| DR Mgt & Admin | 20,000.00 EUR |
| CR Cash/Bank | 20,000.00 EUR |

See accounts in exhibit 18:

| | | | | | | | | | | | |
|------------------|-----------|-------------------------|-----------|---------------------|-----------|------|-----------|------|------------|------------|------------|
| Material | | Labour | | Depr | | | | | | | |
| (1) | 13,500.00 | (2) | 13,500.00 | (3) | 10,000.00 | (4) | 6,000.00 | (6) | 11,500.00 | (7) | 11,500.00 |
| | | | | | | (5) | 4,000.00 | | | | |
| | | | | | | | 10,000.00 | | | | |
| | | | | | | | | | | | |
| Acc. Depr | | Supervisor's Sal | | Cash/Bank | | | | | | | |
| c/d | 11,500.00 | (6) | 11,500.00 | (8) | 5,000.00 | (9) | 2,500.00 | (14) | 108,000.00 | (1) | 13,500.00 |
| | | b/d | 11,500.00 | | | (10) | 2,500.00 | | | (3) | 10,000.00 |
| | | | | | | | | | | (8) | 5,000.00 |
| | | | | | | | | | | (15) | 20,000.00 |
| | | | | | | | | | | c/d | 59,500.00 |
| | | | | | | | | | | | |
| | | | | | | | | | | 108,000.00 | 108,000.00 |
| | | | | | | | | | | | |
| | | | | | | | | | b/d | 59,500.00 | |
| WIP-Dough | | WIP-Bakery | | FG-Inventory | | | | | | | |
| (2) | 13,500.00 | (11) | 22,000.00 | (5) | 4,000.00 | (12) | 40,000.00 | (12) | 40,000.00 | (13) | 36,000.00 |
| (4) | 6,000.00 | | | (7) | 11,500.00 | | | | | c/d | 4,000.00 |
| (9) | 2,500.00 | | | (10) | 2,500.00 | | | | | | |
| | 22,000.00 | | 22,000.00 | (11) | 22,000.00 | | | | | | |
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Exhibit 1: Accounts

The amounts for the income statement are derived from the accounts in exhibit 1. See the statement of comprehensive income along the cost of sales format in exhibit 2. The pretax profit amounts to 52,000.00 EUR. Tax expenses are $30\% \cdot 52,000 = 15,600.00$ EUR.

Laupendahl Ltd's
STATEMENT of COMPREHENSIVE INCOME
for January 20X5

| | I/20X5 [EUR] |
|------------------------------|-----------------|
| Revenue | 108.000,00 |
| Other income | |
| | 108.000,00 |
| Cost of sales | (36.000,00) |
| Management & Administration | (20.000,00) |
| Profit before taxation (EBT) | 52.000,00 |
| Income tax expenses | (15.600,00) |
| Deferred tax income/expense | |
| Profit for the period (EAT) | 36.400,00 |

Exhibit 2: Income statement for I/20X5 (c.o.s. format)

In case LAUPENDAHL Ltd prepares the statement of comprehensive income the amount for closing stock is relevant. It can be seen as the balancing figure of the FG-Inventory account in exhibit 18: 4,000.00 EUR. The expenses for materials, labour (direct labour plus supervisor's salary), depreciation, and other expenses (= management and administration expenses) are given. Observe that the profit for the period is the same amount as along the income statement in exhibit 3.

**Laupendahl Ltd's
STATEMENT of COMPREHENSIVE INCOME
for I/20X5**

| | 20X6 |
|---|-------------------|
| | [EUR] |
| Revenue | 108.000,00 |
| Other Income | |
| Changes in Inventory of Finished Goods and Work in Progress | 4.000,00 |
| Work Performed by the Entity and Capitalized | <u>112.000,00</u> |
| Raw Material and Consumables Used | (13.500,00) |
| Employee Benefits Expense | (15.000,00) |
| Depreciation and Amortisation Expense | (11.500,00) |
| Impairment of Property, Plant and Equipment | |
| Other Expenses | (20.000,00) |
| Finance Costs | |
| Share of Profit of Associates | |
| Profit Before Taxation (EBT) | <u>52.000,00</u> |
| Income Tax Expenses | (15.600,00) |
| Deferred Tax Income/Expense | |
| <i>Profit for the Period (EAT)</i> | <u>36.400,00</u> |

Exhibit 3: Income Statement along the Nature of Expense Format