

Job Order Costing

Learning Objectives



- 1. Distinguish between job order costing and process costing
- 2. Record materials and labor costs in a job order costing system
- 3. Calculate the predetermined overhead allocation rate and allocate overhead costs

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Learning Objectives



- 4. Record the completion and sales of finished goods
- 5. Adjust for overallocated and underallocated overhead
- 6. Calculate job costs for a service company

Learning Objective 1



Distinguish between job order costing and process costing

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Knowing the Cost of One Unit of Product Helps Managers to:

- · Set selling prices that will lead to profits
- Compute cost of goods sold for the income statement
- Compute the cost of inventory for the balance sheet

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Examples of Unit Costs

Exhibit 19-1 Examples of Unit Costs Managers of a(n): Need to know the cost to: Fast food restaurant Make a cheeseburger Freight service Transport a pound of freight for a mile Automobile manufacturer Make a car Construction firm Build a house

Prepare a tax return

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Accounting firm

Costing Systems

Job Order Costing Unique product/ specialized service Accumulates costs by job Process Costing Identical units Accumulates costs by process

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Four-Step Method to Track Product Costs

- 1. Accumulate
- 2. Assign
- 3. Allocate
- 4. Adjust

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Would the following companies most likely use job order costing or process costing?

- 1. Paint manufacturer
- 2. Print shop
- 3. Caterer
- 4. Soft drink bottler
- 5. Yacht builder

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Would the following companies most likely use job order costing or process costing?

- 1. Paint manufacturer Process costing
- 2. Print shop
- 3. Caterer
- 4. Soft drink bottler
- 5. Yacht builder

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Would the following companies most likely use job order costing or process costing?

- 1. Paint manufacturer Process costing
- 2. Print shop Job order costing
- 3. Caterer
- 4. Soft drink bottler
- 5. Yacht builder

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Would the following companies most likely use job order costing or process costing?

1. Paint manufacturer Process costing

2. Print shop Job order costing

3. Caterer Job order costing

4. Soft drink bottler

5. Yacht builder

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>TRY IT!

Would the following companies most likely use job order costing or process costing?

1. Paint manufacturer Process costing

2. Print shop Job order costing

3. Caterer Job order costing

4. Soft drink bottler Process costing

5. Yacht builder

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Would the following companies most likely use job order costing or process costing?

1. Paint manufacturer Process costing

2. Print shop Job order costing

3. Caterer Job order costing

4. Soft drink bottler **Process costing**

5. Yacht builder Job order costing

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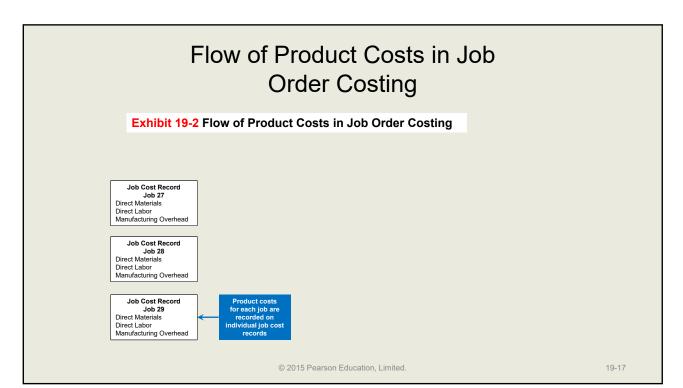
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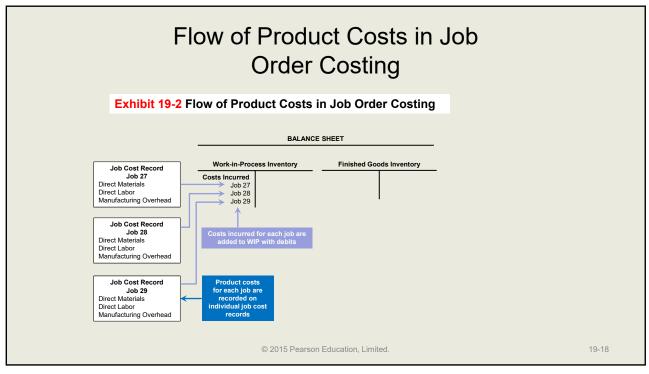
Learning Objective 2

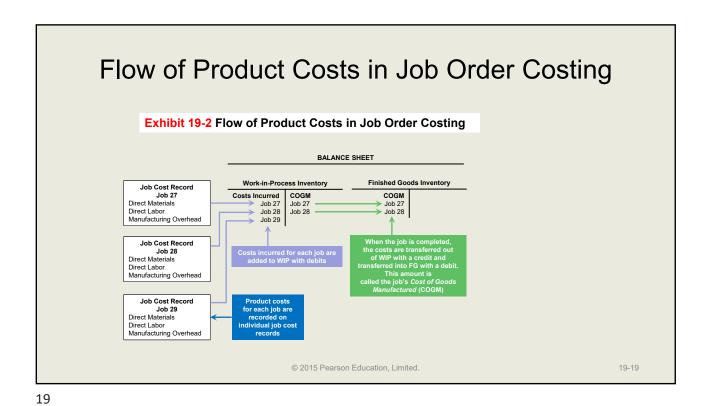


Record materials and labor costs in a job order costing system

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Flow of Product Costs in Job Order Costing Exhibit 19-2 Flow of Product Costs in Job Order Costing BALANCE SHEET INCOME STATEMENT Cost of Goods Sold Work-in-Process Inventory **Finished Goods Inventory** Job Cost Record Job 27
Direct Materials
Direct Labor
Manufacturing Overhead Costs Incurred

Job 27
Job 28
Job 29
Job 28 COGM Job 27 Job 28 Job 27 COGS Job 27 Job Cost Record Job 28
Direct Materials
Direct Labor
Manufacturing Overhead Job 29 Direct Materials Direct Labor Manufacturing Overhead © 2015 Pearson Education, Limited. 19-20

Purchasing Materials

Transaction 1—Materials Purchased: During 2016, Smart Touch purchased raw materials of \$367,000 on account.





Raw Materials Inventory

Bal. 70,000

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Purchasing Materials

Transaction 1—Materials Purchased: During 2016, Smart Touch purchased raw materials of \$367,000 on account.

Date	Accounts and Explanations	Debit	Credit
Trans. 1	Raw Materials Inventory	367,000	
	Accounts Payable		367,000

$$\begin{array}{c} A \uparrow \\ \hline RM \uparrow \end{array} \right] = \left\{ \begin{array}{c} L \uparrow \\ \hline A/P \uparrow \end{array} \right. + \begin{array}{c} E \\ \hline \end{array}$$

 Raw Materials Inventory

 Bal.
 70,000

 Trans. 1
 367,000

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Materials Requisition

Exhibit 19-4 | Materials Requisition

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Job Cost Record—Direct **Materials Recorded** Exhibit 19-5 Job Cost Record - Direct Materials Recorded JOB COST RECORD STL SMART TOUCH LEARNING, INC. Job Number 27 Central College Bookstore Customer Job Description 15 tablets with accounting e-learning software Direct Materials Direct Labor Manufacturing Overhead Cost Summary Direct Materials Direct Labor Manufacturing Overhead Total Cost Unit Cost

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Using Materials

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Transaction 2—Materials Used: In 2016, Smart Touch used direct materials costing \$355,000 and indirect materials of \$17,000.

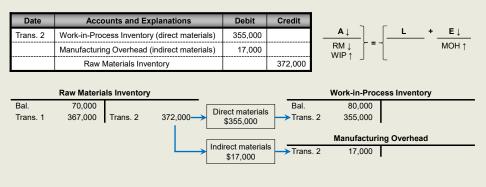
Date	Acco	unts and Explanations	Debit	Credit	A] [L + E
						+ _E
	Raw Materia	de Inventory		_	Work-in-Proces	ao Inventen
lal.	70,000	is inventory		Bal.	80,000	ss inventory
rans. 1	367,000					

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Using Materials

Transaction 2—Materials Used: In 2016, Smart Touch used direct materials costing \$355,000 and indirect materials of \$17,000.



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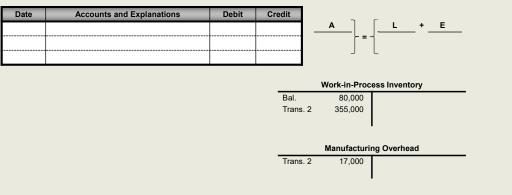




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Labor Costs Incurred

Transaction 3—Labor Costs Incurred: During 2016, Smart Touch incurred total labor costs of \$197,000, of which \$169,000 was direct labor and \$28,000 was indirect labor.



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Labor Costs Incurred

Transaction 3—Labor Costs Incurred: During 2016, Smart Touch incurred total labor costs of \$197,000, of which \$169,000 was direct labor and \$28,000 was indirect labor.

Date	Accounts and Explanations	Debit	Credit		_
Trans. 3	Work-in-Process Inventory (direct labor)	169,000		A↑	+E↓
	Manufacturing Overhead (indirect labor)	28,000		WIP↑ -=	Wages MOH ↑ Pay ↑
	Wages Payable		197,000	ا ل	L ray
	Trans. 3 197,000	Direct labor \$169,000	Bal. Trans. 2 Trans. 3	169,000	
	Trans. 3 197,000		Trans. 2	355,000	g Overhead
	Trans. 3 197,000		Trans. 2 Trans. 3	355,000 169,000	g Overhead

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Record the following journal entries for Smith Company:

6. Purchased materials on account, \$10,000

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Record the following journal entries for Smith Company:

6. Purchased materials on account, \$10,000

Raw Materials Inventory 10,000
Accounts Payable 10,000

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Record the following journal entries for Smith Company:

7. Used \$6,000 in direct materials and \$500 in indirect materials in production.

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Record the following journal entries for Smith Company:

7. Used \$6,000 in direct materials and \$500 in indirect materials in production.

Work in Process Inventory 6,000

Manufacturing Overhead 500

Raw Materials Inventory 6,500

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Record the following journal entries for Smith Company:

8. Incurred \$8,000 in labor costs, of which 80% was direct labor.

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Record the following journal entries for Smith Company:

8. Incurred \$8,000 in labor costs, of which 80% was direct labor.

Work in Process Inventory 6,400

Manufacturing Overhead 1,600

Wages Payable 8,000

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Learning Objective 3



Calculate the predetermined overhead allocation rate and allocate overhead costs

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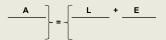
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Actual Overhead Costs Incurred

Transaction 4—Actual Overhead Costs Incurred:

Depreciation on manufacturing plant and equipment, \$20,000.

Date	Accounts and Explanations	Debit	Credit



 Manufacturing Overhead

 Trans. 2
 17,000

 Trans. 3
 28,000

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Transaction 4—Actual Overhead Costs Incurred:

Depreciation on manufacturing plant and equipment, \$20,000.

Date	Accounts and Explanations	Debit	Credit	A↓
Trans. 4	Manufacturing Overhead	20,000		Accum
	Accumulated Depreciation		20,000	Depr ↑



Manufacturing Overhead

Trans. 3 28,000 Trans. 4 20,000

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Actual Overhead Costs Incurred

Transaction 5—Actual Overhead Costs Incurred:

Plant utilities, \$7,000.

Date	Accounts and Explanations	Debit	Credit



Manufacturing Overhead

Trans. 2 17,000 Trans. 3 28,000 Trans. 4 20,000

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Transaction 5—Actual Overhead Costs Incurred:

Paid \$7,000 for plant utilities.

Date	Accounts and Explanations	Debit	Credit
Trans. 5	Manufacturing Overhead	7,000	
	Cash		7,000

$$\begin{array}{c|c} \hline A \downarrow \\ \hline \hline Cash \downarrow \\ \end{array} = \begin{array}{c|c} \hline L \\ \hline \end{array} \begin{array}{c} + \hline E \downarrow \\ \hline \hline MOH \uparrow \\ \end{array}$$

Manufacturing Overhead

rrans. Z	17,000
Trans. 3	28,000
Trans. 4	20,000
Trans. 5	7,000

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Actual Overhead Costs Incurred

Transaction 6—Actual Overhead Costs Incurred:

Plant insurance, \$6,000 (previously paid).

Date	Accounts and Explanations	Debit	Credit



Manufacturing Overhead

Trans. 2 17,000 Trans. 3 28,000 Trans. 4 20,000 Trans. 5 7,000

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Transaction 6—Actual Overhead Costs Incurred:

Plant insurance, \$6,000 (previously paid).

Date	Accounts and Explanations	Debit	Credit	i
Trans. 6	Manufacturing Overhead	6,000		_
	Prepaid Insurance		6,000	



Manufacturing Overhead				
Trans. 2	17,000			
Trans. 3	28,000			
Trans. 4	20,000			
Trans. 5	7,000			
Trans. 6	6,000			

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Actual Overhead Costs Incurred

Transaction 7—Actual Overhead Costs Incurred:

Plant property taxes incurred but not yet paid, \$5,000.

Date	Accounts and Explanations	Debit	Credit
I		T	



	Manuracturii	ig Overne
Trans. 2	17,000	
Trans. 3	28,000	
Trans 4	20,000	

Trans. 4 20,000 Trans. 5 7,000 Trans. 6 6,000

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Transaction 7—Actual Overhead Costs Incurred:

Plant property taxes incurred but not yet paid, \$5,000.

Date	Accounts and Explanations	Debit	Credit	Α]	[L↑	+ E↓
Trans. 7	Manufacturing Overhead	5,000		<u>-</u>	Prop Tax	MOH ↑
	Property Taxes Payable		5,000	J	_ Pay ↑	

Manufacturing Overhead			
Trans. 2	17,000		
Trans. 3	28,000		
Trans. 4	20,000		
Trans. 5	7,000		
Trans. 6	6,000		
Trans. 7	5,000		
Bal	83,000		

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Steps for Allocating Overhead Costs

- 1. Calculating the predetermined overhead rate before the period
- 2. Allocating overhead during the period
- 3. Adjusting overhead at the end of the period

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Predetermined Overhead Allocation Rate

Total estimated overhead costs

Total estimated quantity of the overhead allocation base

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Traditional Cost Drivers

- Direct labor hours (for labor-intensive production environments)
- Direct labor cost (for labor-intensive production environments)
- Machine hours (for machine-intensive production environments)

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Predetermined Overhead Allocation Rate

At the end of 2015, Smart Touch estimated that total overhead costs for 2016 would be \$68,000 and direct labor cost would total \$170,000.

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Predetermined Overhead Allocation Rate

At the end of 2015, Smart Touch estimated that total overhead costs for 2016 would be \$68,000 and direct labor cost would total \$170,000.

Total estimated overhead costs

Total estimated quantity of the overhead allocation base

\$ 68,000 \$170,000

= 0.40 = 40%

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Allocating Overhead

Allocated Manufacturing = Overhead Overhead Cost

Predetermined **Allocation Rate**

Actual Quantity of the Allocation Base Used by Each Job

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Allocating Overhead

Smart Touch Learning's total direct labor cost for Job 27 was \$1,250. How much overhead should be allocated to Job 27?

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Allocating Overhead

Smart Touch Learning's total direct labor cost for Job 27 was \$1,250. How much overhead should be allocated to Job 27?

Allocated **Overhead Cost**

Predetermined Manufacturing = Overhead **Allocation Rate**

Actual Quantity of the Allocation Base Used by Each Job

40%

\$1,250

\$500

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Job Cost Record—Completed



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Overhead Allocation

Transaction 8—Overhead Allocation: Smart Touch's total direct labor cost for 2016 was \$169,000. Overhead was allocated based on direct labor cost.

Date	Accounts and Explanations	Debit	Credit	
				_
l				



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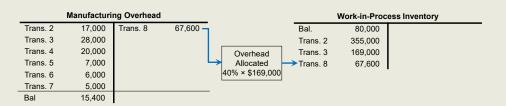
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Overhead Allocation

Transaction 8—Overhead Allocation: Smart Touch's total direct labor cost for 2016 was \$169,000. Overhead was allocated based on direct labor cost.

Date	Accounts and Explanations	Debit	Credit
Trans. 8	Work-in-Process Inventory	67,600	
	Manufacturing Overhead		67,600





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Smith Company expected to incur \$10,000 in manufacturing overhead costs and use 4,000 machine hours for the year. Actual manu-facturing overhead was \$9,700 and the company used 4,250 machine hours.

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>TRY IT!

9. Calculate the predetermined overhead allocation rate using machine hours as the allocation base.

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>TRY IT!

9. Calculate the predetermined overhead allocation rate using machine hours as the allocation base.

\$10,000

4,000 machine hours

\$2.50 per machine hour

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>TRY IT!

10. How much manufacturing overhead was allocated during the year?

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10. How much manufacturing overhead was allocated during the year?

\$2.50 per machine hour × 4,250 machine hours
= \$10,625

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Learning Objective 4

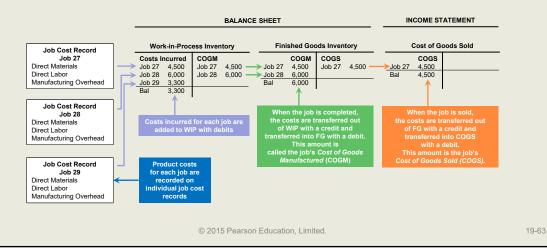


Record the completion and sales of finished goods

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Flow of Product Costs in Job Order Costing

Exhibit 19-8 Flow of Product Costs for Jobs 27, 28, and 29



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Jobs Completed

Transaction 9—Jobs Completed: The \$644,600 Cost of Goods Manufactured is the cost of all jobs Smart Touch completed during 2016.

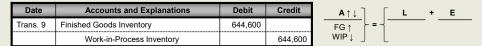
Date	Accounts and Explanations	Debit	Credit



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Jobs Completed

Transaction 9—Jobs Completed: The \$644,600 Cost of Goods Manufactured is the cost of all jobs Smart Touch completed during 2016.





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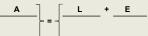
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Jobs Sold

Transaction 10—Jobs Sold: During 2016, sales on account were \$1,200,000.





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Jobs Sold

Transaction 10—Jobs Sold: During 2016, sales on account were \$1,200,000

Date	Accounts and Explanations	Debit	Credit
Trans. 10	Accounts Receivable	1,200,000	
	Sales Revenue		1,200,000

$$\begin{array}{c|c} A \uparrow \\ \hline A/R \uparrow \end{array} = \begin{array}{c|c} L & + & E \uparrow \\ \hline & Sales \uparrow \end{array}$$

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Cost of Jobs Sold

Transaction 11—Cost of Jobs Sold: The cost of all jobs that Smart Touch sold during 2016 was \$584,600.

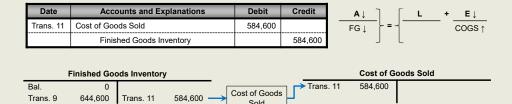
Date	Accounts and Explanations	Debit	Credit



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Cost of Jobs Sold

Transaction 11—Cost of Jobs Sold: The cost of all jobs that Smart Touch sold during 2016 was \$584,600.



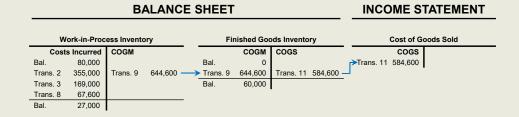
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Trans. 9

Summary of the Completion and Sale of Jobs



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The following information pertains to Smith Company, which you worked with previously in this chapter:

11. Smith Company completed jobs that cost \$25,000 to manufacture. Record the journal entry.

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The following information pertains to Smith Company, which you worked with previously in this chapter:

11. Smith Company completed jobs that cost \$25,000 to manufacture. Record the journal entry.

Finished Goods Inventory 25,000
Work-in-Process Inventory 25,000

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12. Smith Company sold jobs to customers on account for \$52,000 that cost \$22,000 to manufacture. Record the journal entries.

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>TRY IT!

12. Smith Company sold jobs to customers on account for \$52,000 that cost \$22,000 to manufacture. Record the journal entries.

Accounts Receivable 52,000

Sales Revenues 52,000

Cost of Goods Sold 22,000

Finished Goods Inventory 22,000

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