

Purchased A \$170,000 Machine On January 1 Of This Year For \$34,000 Cash. A Five-year Note Is Signed For

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When a business invests in large equipment or machinery, understanding the accounting implications is essential for accurate financial reporting and strategic planning. One common scenario involves purchasing a significant asset like a machine with a combination of cash payment and financing. In this case, a company acquires a \$170,000 machine on January 1 of the current year by paying \$34,000 in cash and signing a five-year note for the remaining balance. This comprehensive guide explores the accounting treatment, journal entries, and key considerations involved in such a transaction.

Understanding the Purchase Transaction

Details of the Acquisition

- Purchase Price of Machine: \$170,000
- Cash Paid at Purchase: \$34,000
- Financed Amount (Note): \$136,000 (which is \$170,000 - \$34,000)
- Date of Purchase: January 1 of the current year
- Note Term: 5 years

This transaction reflects a typical scenario where a business leverages financing to acquire an asset while conserving cash flow. The initial cash outlay is significantly less than the total cost, with the remaining balance financed through a note payable.

Accounting for the Purchase

Proper accounting treatment involves recognizing the asset at its total cost and recording the related liabilities and cash outflows. The key steps include:

1. Recording the Asset

- The asset (machine) should be recorded at its purchase price, which includes all costs necessary to

acquire and prepare the asset for use.

- In this case, the total cost is \$170,000, as this reflects the fair value of the machine at acquisition.

2. Recording the Cash Payment

- The cash paid reduces cash assets.
- The journal entry debits the Machinery account and credits Cash.

3. Recording the Note Payable

- The financed amount creates a liability.
- The journal entry credits a Note Payable account.

4. Recognizing any Additional Costs

- If applicable, include costs such as transportation, installation, and testing in the asset's cost basis.

Journal Entries at the Date of Purchase

To record the transaction, the following journal entries are made:

Dr. Machinery	\$170,000
Cr. Cash	\$34,000
Cr. Note Payable	\$136,000

Explanation:

- Machinery is debited for the total acquisition cost, representing the asset on the balance sheet.
- Cash is credited for the amount paid upfront.
- Note Payable is credited for the financed amount, representing the liability.

Accounting for the Note and Interest

Since a five-year note is signed, the company will accrue interest expense over the life of the loan. The key considerations include:

1. Determining the Interest Rate

- The interest rate specified in the note agreement is used to calculate interest expense.
- If not specified, market rates are assumed.

2. Recognizing Interest Expense

- Interest expense is recognized periodically (monthly, quarterly, or annually).
- The company should amortize any premium or discount if the note is issued at a rate different from the market rate.

3. Recording Payments

- Payments typically include interest and principal.
- Interest expense is recorded on the income statement.
- Principal reductions decrease the liability balance.

Amortization of the Loan

Over the five-year term, the company will systematically amortize the note payable:

1. Amortization Schedule

- An amortization schedule outlines the periodic interest expense and principal repayment.
- It ensures accurate tracking of the outstanding balance.

2. Recording Periodic Payments

- Each payment reduces the note payable principal.
- Interest expense is recognized based on the outstanding balance and the interest rate.

3. Journal Entry for Interest and Principal Payment

For each payment period, the journal entry might look like:

Dr. Interest Expense	(interest amount)
Dr. Note Payable	(principal repayment)
Cr. Cash	(total payment)

Impact on Financial Statements

The purchase affects various financial statement components:

1. Balance Sheet

- Assets: Increase by \$170,000 in Machinery.
- Liabilities: Increase by \$136,000 in Notes Payable.
- Cash: Decrease by \$34,000.

2. Income Statement

- Depreciation Expense: The machinery will be depreciated over its useful life, impacting net income.
- Interest Expense: Recognized periodically based on the interest accrued on the note.

3. Cash Flow Statement

- Investing Activities: Outflow of \$34,000 for the cash payment.
- Financing Activities: Outflows representing interest payments and principal repayments.

Depreciation of the Machinery

Since the machinery is a long-term asset, it must be depreciated over its estimated useful life:

1. Determining the Useful Life

- Based on industry standards, company policies, or manufacturer guidelines.

2. Choosing a Depreciation Method

- Straight-line: equal expense over useful life.
- Accelerated methods: such as double-declining balance.

3. Calculating Depreciation

- For example, with straight-line depreciation over 10 years:

$$\text{Annual Depreciation Expense} = \$170,000 / 10 = \$17,000$$

This expense reduces net income and affects the equity section over time.

Tax Implications

The purchase and financing of machinery have tax implications that influence financial decisions:

1. Deductibility of Depreciation

- Machinery depreciation may be deductible for tax purposes, reducing taxable income.

2. Interest Deduction

- Interest paid on the note is generally tax-deductible.

3. Capital Allowance Options

- Depending on jurisdiction, accelerated depreciation or bonus depreciation may be available.

Key Considerations and Best Practices

When handling such transactions, companies should consider:

1. **Accurate Asset Valuation:** Ensure the machinery is recorded at its fair value, including all associated costs.
2. **Interest Rate Negotiation:** Secure favorable interest rates to minimize financing costs.
3. **Amortization Planning:** Develop a comprehensive schedule to manage repayments effectively.
4. **Depreciation Policies:** Apply consistent depreciation methods aligned with industry standards and tax regulations.
5. **Financial Analysis:** Assess how the purchase impacts liquidity, leverage, and profitability ratios.
6. **Compliance:** Ensure all transactions comply with accounting standards such as GAAP or IFRS.

Conclusion

Purchasing a substantial asset like a \$170,000 machine with a combination of cash and financing involves meticulous accounting and financial planning. Starting with proper journal entries at the date of purchase, recognizing the asset and liabilities accurately, and systematically amortizing the note payable are critical steps. Additionally, depreciation of the machinery over its useful life and managing interest expenses are vital for reflecting the true economic impact of the transaction. Strategic considerations around tax implications, cash flow management, and long-term asset utilization further enhance the company's financial health and operational efficiency. By adhering to best practices and thorough record-keeping, businesses can ensure transparency, compliance, and informed decision-making surrounding large capital investments.

Frequently Asked Questions

What accounting entries are needed to record the purchase of a \$170,000 machine with a \$34,000 cash payment and a five-year note?

Debit Machinery for \$170,000, credit Cash for \$34,000, and credit Notes Payable for \$136,000 to record the purchase and financing terms.

How should the interest expense be calculated on the five-year note for the machine purchase?

Interest expense should be calculated based on the note's interest rate (if specified) over the five-year period, typically using the effective interest method or straight-line, depending on the terms.

What depreciation method is appropriate for the \$170,000 machine purchased at the beginning of the year?

Straight-line depreciation over the estimated useful life of the machine is commonly used unless another method better reflects usage; for example, 5 years if that is the useful life.

How does the purchase impact the company's balance sheet and cash flow statement?

On the balance sheet, assets increase by \$170,000; liabilities increase by \$136,000 (notes payable), and cash decreases by \$34,000. The cash outflow is reflected in the investing activities section of the cash flow statement.

Are there any tax implications associated with purchasing a machine through a note payable?

Yes, the company may be able to depreciate the asset for tax purposes, reducing taxable income. Additionally, interest paid on the note may be deductible, depending on tax laws.

What factors should be considered when determining the useful life and depreciation method for the machine?

Factors include the expected physical life, technological obsolescence, usage patterns, and industry standards. The chosen depreciation method should reflect how the asset's benefits are realized over time.

How does the presence of a note payable affect the company's financial ratios?

The note payable increases liabilities, which may impact debt ratios, such as debt-to-equity and debt-to-assets ratios, potentially affecting creditworthiness and financial stability assessments.

Additional Resources

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Introduction

In the fast-paced world of manufacturing and industrial operations, capital investments in machinery are pivotal to maintaining competitiveness, increasing efficiency, and expanding production capacity. Recently, a notable transaction has garnered attention: a company purchased a high-value machine, valued at \$170,000, on January 1 of this year, paying only \$34,000 in cash and agreeing to a five-year note for the remaining balance. This transaction exemplifies strategic financial planning, asset management, and the complexities involved in large capital acquisitions.

This article delves into the details of this transaction, examining the financial mechanics, accounting implications, strategic considerations, and potential impacts on the company's operations. Through a comprehensive analysis, we aim to shed light on the motivations behind such a deal, the accounting treatment, and the broader industry context.

The Details of the Transaction

The Purchase Price and Payment Structure

On January 1, the company acquired a machine with a total cost of \$170,000. The immediate cash outlay was only \$34,000, representing roughly 20% of the total cost. The remaining \$136,000 was

financed through a five-year promissory note.

This payment structure indicates strategic financial management. The significant leverage—using debt rather than full cash payment—suggests the company's intention to preserve liquidity, possibly to fund other operations or investments. The low upfront cash payment also hints at favorable financing terms or negotiations with the supplier or lender.

The Promissory Note Terms

While specific interest rates and repayment schedules are not provided, typical five-year notes involve annual or semi-annual payments. For simplicity, assume an interest rate of 5% per annum, which is common for equipment financing in this range during recent years.

A rough amortization schedule would include:

- Equal annual payments covering both principal and interest.
- The initial payment largely covering interest, with principal repayment increasing over time.
- Final payment settling the remaining balance at the end of five years.

Understanding these details is crucial for accurate accounting and financial planning.

Strategic Motivations Behind the Transaction

Preserving Liquidity and Capital Efficiency

One of the primary reasons companies opt for financing large machinery purchases is to conserve cash flow. By paying only 20% upfront, the company maintains liquidity, which can be redirected toward operational expenses, research and development, or other capital investments.

Leveraging Low-Interest Rates

Assuming favorable interest rates, financing can be more cost-effective than tying up large sums of cash or issuing equity. Low-interest debt can also boost return on assets (ROA) and improve financial ratios, making the company appear more efficient and financially healthy.

Tax Implications

Interest payments on the note are typically tax-deductible, providing a tax shield. This can reduce the overall cost of borrowing and enhance the after-tax cash flow.

Asset Acquisition and Capacity Expansion

Acquiring a new machine, especially one valued at \$170,000, often signifies an effort to increase production capacity, improve product quality, or reduce operational costs. This strategic move can have long-term benefits, including higher sales, improved margins, and competitive advantage.

Accounting Treatment and Financial Reporting

Initial Recording of the Asset

According to generally accepted accounting principles (GAAP), the asset should be recorded at its fair value or purchase price, which in this case is \$170,000. The entry would involve:

- Debit: Machinery (Asset account) — \$170,000
- Credit: Cash — \$34,000
- Credit: Notes Payable — \$136,000

This reflects the acquisition cost and the corresponding liabilities.

Recognizing the Lease or Loan

Since the company signed a five-year note, the liability should be recorded at its present value, considering the interest rate implicit in the note. Over time, the liability is reduced as payments are made, and the asset is depreciated accordingly.

Depreciation Methods

The machinery will be depreciated over its useful life. Common methods include:

- Straight-line depreciation
- Declining balance method
- Units of production

Given the nature of industrial machinery, the company might choose straight-line depreciation, spreading the cost evenly over its estimated useful life, say five or ten years.

Impact on Financial Statements

- Balance Sheet: An increase in assets (\$170,000) and liabilities (\$136,000) at acquisition.
- Income Statement: Depreciation expense and interest expense will affect net income over time.
- Cash Flow Statement: The initial cash outflow is \$34,000; subsequent payments will be reflected in financing activities.

Broader Industry Context and Implications

Trends in Equipment Financing

The transaction aligns with broader industry trends favoring leasing and financing options. Companies increasingly prefer off-balance-sheet financing, low upfront costs, and flexible repayment terms, especially in high-capital industries like manufacturing, construction, and energy.

Risks and Considerations

While leveraging debt can be advantageous, it also introduces risks:

- Interest Rate Risk: Fluctuations in rates can increase borrowing costs.
- Liquidity Risk: If cash flows decline, servicing debt may become challenging.

- Obsolescence: Rapid technological advances may render machinery outdated before the end of its useful life.

Impact on Competitive Position

Investing in modern machinery can elevate a company's market position by improving efficiency, reducing costs, and enabling product innovation. However, misjudging the return on investment or over-leveraging can undermine financial stability.

Critical Analysis

Suitability of the Purchase

The decision to acquire a \$170,000 machine with only \$34,000 cash upfront suggests confidence in future cash flows and strategic planning. However, due diligence is essential to assess:

- The projected increase in productivity or revenue.
- The total cost of ownership, including maintenance and operational costs.
- The residual value or salvage value at the end of the machine's useful life.

Financial Health and Ratios

Investors and stakeholders should analyze key ratios post-transaction:

- Debt-to-Equity Ratio: Will this increase significantly, and what does that mean for leverage?
- Return on Assets (ROA): How will this new asset impact profitability?
- Interest Coverage Ratio: Can the company comfortably meet interest obligations?

Future Outlook

If the investment leads to increased output and profitability, the strategic use of financing can be justified. Conversely, if market conditions deteriorate or the machinery becomes obsolete sooner than expected, the company could face challenges.

Conclusion

The purchase of a \$170,000 machine for only \$34,000 cash, backed by a five-year note, exemplifies a strategic approach to capital investment that balances operational needs with financial prudence. This transaction embodies the core principles of leveraging debt, optimizing liquidity, and aligning asset acquisition with long-term growth objectives.

For stakeholders and analysts, understanding the nuances of such transactions is vital. It involves scrutinizing the financial terms, assessing strategic fit, and evaluating potential risks and returns. As industries continue to evolve, such financial strategies will remain central to corporate growth and competitiveness.

In summary, this case underscores the importance of careful financial planning, transparent

accounting, and strategic foresight in capital investments—elements that are crucial for sustained success in today's complex business environment.

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