

## How to Calculate Depreciation Using the Units of Production Method

Fixed asset depreciation is just one of the many tax strategies that companies use. It lowers the amount of earnings that taxes are based on, which in turn reduces the amount of taxes owed. Now there are five different depreciation methods, as outlined by the Generally Accepted Accounting Principles, or GAAP. The method to use depends on the type of asset, so let's talk about the units of production method.

This is a unique one. Unlike fixed depreciation methods, the units of production method ties the depreciation expense directly to the usage or the output of an asset. So therefore, this is ideal for machinery and equipment whose wear and tear are closely related to their production levels.

So here's how it works. Depreciation is calculated based on the asset's usage during a period, rather than just the passing of time. This makes it a fair reflection of the assets wear and tear during that period. To calculate depreciation using this method, we use the formula: cost minus salvage value, divided by total estimated production. The annual depreciation is then determined by multiplying that rate by the number of units actually produced in a year.

So let's take a look at an example to illustrate it: we'll say a company purchased a machine for \$100,000 and this machine is expected to have a total production capacity of 500,000 units. Then in the first year, the machine produces 50,000 units. Let's assume the machine has a \$10,000 salvage value and so then the depreciation per unit is \$90,000 divided by 500,000 units so 18 cents per unit. For the 50,000 units produced in the first year, the depreciation expense therefore, is 50,000 units times 18 cents, for a \$9,000 depreciation expense. The remaining book value of the machine at the end of the first year will then be \$100,000 minus the \$9,000, for a total of \$91,000.

Again, this method is great for assets where usage varies significantly over the life of the asset. It provides a more accurate financial picture by making sure that the depreciation matches the actual wear and tear during the year.