Dimensional Weight Rate Calculation for FedEx Ground® Packages

Billable weight rate calculations changing in 2009.

Effective Jan. 19, 2009, unless you receive prior written notice from FedEx Ground, the shipping charges for larger-size FedEx Ground packages will be calculated based on dimensional weight rather than on oversize package definitions.

Dimensional weight is based on volume (the amount of space a package occupies in relation to its actual weight). If the cubic size of your FedEx Ground package measures three cubic feet (5,184 cubic inches or 84,951 cubic centimetres) or greater, you will be charged the greater of the dimensional weight or the actual weight.

A package weighing 150 lbs. (68 kg) or less and measuring greater than 130 inches (330 cm) in combined length and girth will be classified by FedEx Ground as an “Oversize” package. All packages must have a combined length and girth of no more than 165 inches (419 cm). An oversize charge of $30 per package will also apply to any package measuring greater than 130 inches (330 cm) in combined length and girth.

Shipping charges for packages smaller than three cubic feet are based on actual weight.

Determining Dimensional Weight
To determine if dimensional weight applies to your package, follow these steps:

1. Transportation charges may be assessed based on dimensional weight, which is a volumetric standard. Dimensional-weight pricing is applicable on a per-package basis. Dimensional weight is calculated by multiplying length by width by height of each package. If the total is 3 cubic feet (5,184 cubic inches or 84,951 cubic centimetres) or larger, divide by 166 (if multiplied in inches) or by 6,000 (if multiplied in centimeters). (If the total is less than 5,184 cubic inches or 84,951 cubic centimetres, dimensional weight does not apply). See the Dimensional Weight description in the FedEx Ground Rate Guide for additional details. If the dimensional weight exceeds the actual weight, charges based on the dimensional weight will be assessed.

2. Divide the cubic size by 166 (if measured in inches) or by 6,000 (if measured in centimetres), rounding up to the nearest whole pound. This is the dimensional weight of your package.

3. Compare this number with the actual weight of your package. Price your shipment based on the greater of the two values.
Examples of Calculating Dimensional Weight

Here are some examples to help you better understand how dimensional weight works for determining billable weight.

Example 1:
- Actual weight: 28 lbs.
- Length: 30 inches
- Width: 15 inches
- Height: 15 inches
- Cubic size calculation: 30” x 15” x 15” = 6,750 cubic inches
- Dimensional weight calculation: 6,750/166 = 41 lbs.

Because dimensional weight (41 lbs.) is greater than actual weight (28 lbs.), 41 lbs. becomes the billable weight.

Example 2:
- Actual weight: 28 lbs.
- Length: 35 inches
- Width: 15 inches
- Height: 8 inches
- Cubic size calculation: 35” x 15” x 8” = 4,200 cubic inches

Because the cubic size in inches is less than 5,184, dimensional weight does not apply. The actual weight becomes the billable weight.

Example 3:
- Actual weight: 13 kg
- Length: 80 centimetres
- Width: 40 centimetres
- Height: 18 centimetres
- Cubic size calculation: 80 cm x 40 cm x 18 cm = 57,600 cubic centimetres

Because the cubic size in centimetres is less than 84,951, dimensional weight does not apply. The actual weight becomes the billable weight.

Example 4:
- Actual weight: 30 kg
- Length: 80 centimetres
- Width: 50 centimetres
- Height: 50 centimetres
- Cubic size calculation: 80 cm x 50 cm x 50 cm = 200,000 cubic centimetres
- Dimensional weight calculation: 200,000/6,000 = 33 kg

Because dimensional weight (33 kg) is greater than actual weight, 33 kg becomes the billable weight.