

GEAR DISPLACEMENT CALCULATION

The volumetric displacement of a gear pump or motor can be approximated by measurement of the internal parts and substituting the values in the following formula:

$$V = 6.03 \times w \times (2d - L) \times \frac{L - d}{2}$$

Where

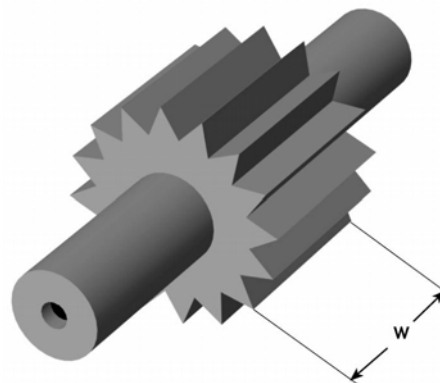
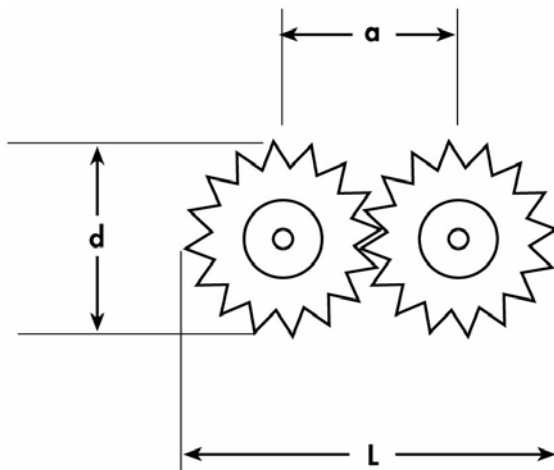
- V = displacement in in³/rev
- w = gear width in inches
- d = gear tip diameter in inches
- L = dimension across both gears when meshed in inches

In metric units

$$V = 1.57 \times w \times (d^2 - a^2)$$

Where

- V = displacement in cm³/rev
- w = gear width in centimetres
- d = gear tip diameter in centimetres
- a = gear centres in centimetres



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