

Vulcanized/Spliced O-ring Formulas (determining the size or cut length of a vulcanized/spliced o-ring)

Determine the inside diameter if you know the cut length and the cross section–

$(\text{cut length} \div 3.142) - 1(\text{cross section}) = \text{inside diameter}$

e.g. – 124.375" cut length and a .313" cross section

$(124.375 \div 3.142) - 1(.313) = 39.272"$ inside diameter

Determine the outside diameter if you know the cut length and the cross section–

$(\text{cut length} \div 3.142) + 1(\text{cross section}) = \text{outside diameter}$

e.g. – 124.375" cut length and a .313" cross section

$(124.375 \div 3.142) + 1(.313) = 39.898"$ outside diameter

Determine the cut length if you know the inside diameter and the cross section–

$(\text{inside diameter} + 1X \text{ the cross section}) \times 3.142 = \text{cut length}$

e.g. - 19.750" inside diameter X .500" cross section

$(19.750 + .500) \times 3.142 = 63.625"$ cut length

Determine the cut length if you know the outside diameter and the cross section–

$(\text{outside diameter} - 1X \text{ the cross section}) \times 3.142 = \text{cut length}$

e.g. - 19.750" inside diameter X .500" cross section

$(20.750 - .500) \times 3.142 = 63.625"$ cut length