# Work Done in Blowing a Liquid Drop or Soap Bubble.

(1) If the initial radius of liquid drop is r1 and final radius of liquid drop is r2 then

W = T × Increment in surface area

$W = T \times 4\pi[r_2^2 - r_1^2]$                      [drop has only one free surface]

(2) In case of soap bubble

$W = T \times 8\pi[r_2^2 - r_1^2]$                      [Bubble has two free surfaces]