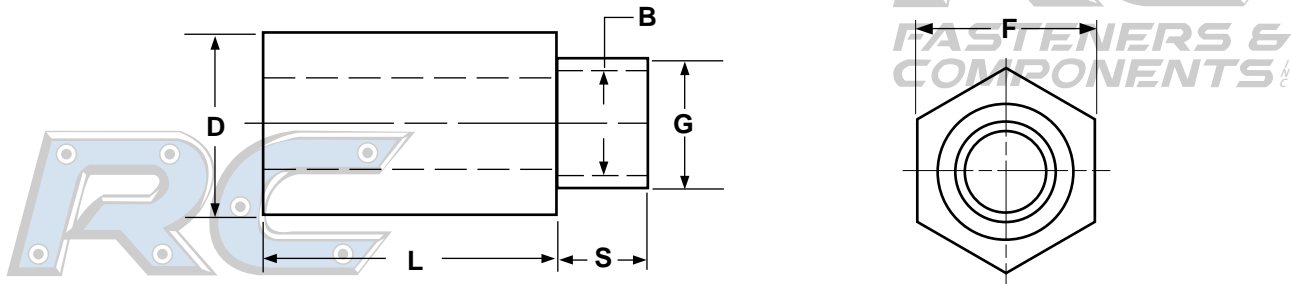


# Hex Swage Spacers

# Spacers & Standoffs



| HEXAGON SWAGE SPACERS |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| D                     | C    |      | S    |      | G    |      | B    |      | D    | C    |      | S    |      | G    |      | B    |      |      |      |      |      |      |      |      |      |      |      |
|                       | Max  | Min  | Max  | Min  | Max  | Min  | Max  | Min  |      | Max  | Min  | Max  | Min  | Max  | Min  | Max  | Min  |      |      |      |      |      |      |      |      |      |      |
| 1/4                   | .125 | .115 | .078 | .072 | .188 | .185 | .152 | .149 | 5/16 | .176 | .166 | .138 | .132 | .234 | .231 | .203 | .200 |      |      |      |      |      |      |      |      |      |      |
|                       |      |      | .108 | .102 |      |      |      |      |      |      |      | .168 | .162 |      |      |      |      | .108 | .102 |      |      |      |      |      |      |      |      |
|                       |      |      | .138 | .132 |      |      |      |      |      |      |      | .108 | .102 |      |      |      |      | .138 | .132 |      |      |      |      |      |      |      |      |
|                       |      |      | .168 | .162 |      |      |      |      |      |      |      | .168 | .162 |      |      |      |      | .168 | .162 |      |      |      |      |      |      |      |      |
|                       | .150 | .140 | .078 | .072 | .234 | .231 | .203 | .200 |      | 3/8  | .150 | .140 | .078 |      |      |      |      | .072 | .234 | .231 | .203 | .200 |      |      |      |      |      |
|                       |      |      | .108 | .102 |      |      |      |      |      |      |      |      | .108 |      |      |      |      | .102 |      |      |      |      | .138 | .132 |      |      |      |
|                       |      |      | .138 | .132 |      |      |      |      |      |      |      |      | .108 |      |      |      |      | .102 |      |      |      |      | .138 | .132 |      |      |      |
|                       |      |      | .168 | .162 |      |      |      |      |      |      |      |      | .168 |      |      |      |      | .162 |      |      |      |      | .168 | .162 |      |      |      |
| .176                  | .166 | .078 | .072 | .234 |      |      |      |      | .231 |      | .203 | .200 | 5/16 | .176 | .166 | .078 | .072 | .234 |      |      |      |      | .231 | .203 | .200 |      |      |
|                       |      | .108 | .102 |      |      |      |      |      |      |      |      |      |      |      |      | .108 | .102 |      |      |      |      |      |      |      |      | .138 | .132 |
|                       |      | .138 | .132 |      |      |      |      |      |      |      |      |      |      |      |      | .108 | .102 |      |      |      |      |      |      |      |      | .138 | .132 |
|                       |      | .168 | .162 |      |      |      |      |      |      |      |      |      |      |      |      | .168 | .162 |      |      |      |      |      |      |      |      | .168 | .162 |
| .202                  | .192 | .078 | .072 |      | .234 | .231 | .203 | .200 |      | 3/8  |      |      |      | .202 | .192 | .078 | .072 |      | .234 | .231 | .203 | .200 |      |      |      |      |      |
|                       |      | .108 | .102 |      |      |      |      |      |      |      |      |      |      |      |      | .108 | .102 |      |      |      |      |      |      |      |      | .138 | .132 |
|                       |      | .138 | .132 |      |      |      |      |      |      |      |      |      |      |      |      | .108 | .102 |      |      |      |      |      |      |      |      | .138 | .132 |
|                       |      | .168 | .162 |      |      |      |      |      |      |      |      |      |      |      |      | .168 | .162 |      |      |      |      |      |      |      |      | .168 | .162 |

Tolerance on Length

±.005

|                                 |  |
|---------------------------------|--|
| <b>Description</b>              | A one-piece, hex-shaped, unthreaded, mechanical device which has a cylindrical protrusion at one end which is smaller in diameter than the hexagonal part of the spacer.   |
| <b>Applications/ Advantages</b> | Hex swage spacers are mounted in circuit boards to keep the board at a given distance from another object. The spacer becomes an integral and permanently attached part of the board. The hex-shaped variety is preferred when wrenching of the spacer is required. Aluminum is popular for its light weight/ strength compromise. It is non-magnetic, performs well in severe temperatures, and has insulating properties. Brass is used in making high-quality swage spacers. It is conductive, resists corrosion, and is non-magnetic. It is costlier and heavier than aluminum and is usually plated zinc or nickel. Steel is used in applications requiring greater strength, but it is heavier than aluminum and does not resist corrosion like aluminum or brass. |
| <b>Material</b>                 | <p><b>Aluminum:</b> 2011 Aluminum (Copper: 5.0-6.0%; Silicon: 0.4% maximum; Iron: 0.7% maximum; Zinc: 0.3% maximum; Bismuth: 0.2-0.6%; Lead: 0.2-0.6%)</p> <p><b>Brass:</b> C36000 Brass (Copper: 60.00-63.00%; Lead: 2.50-3.70%; Iron: .35% maximum)</p> <p><b>Steel:</b> 12L14 Steel-Leaded Grade A (Carbon: .15% maximum; Manganese: .85-1.15%; Phosphorus: .04-.09%; Sulphur: .26-.35%)</p>  |