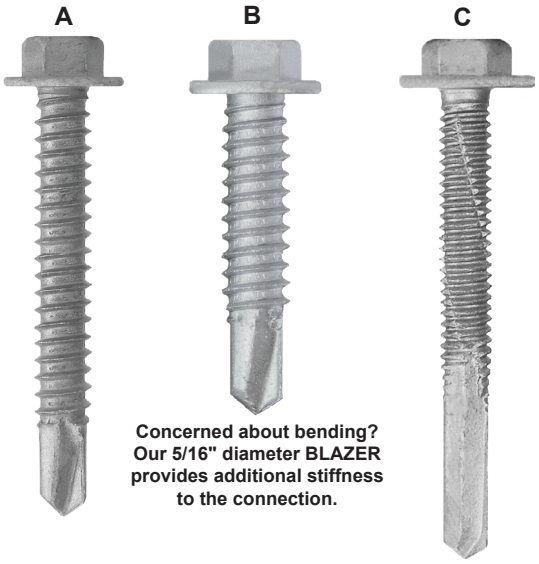
# 1/4” and 5/16” DIAMETERS LENGTHS UP TO 10" LONG




Concerned about bending? Our 5/16" diameter BLAZER provides additional stiffness to the connection.

- The hex washer head is the most popular drive system and provides the best stability during installation.
- TRI-SEAL® long life coating for the ultimate corrosion protection...1,000 hrs salt spray with no red rust!

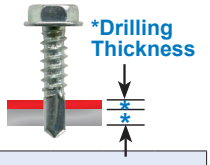
FM APPROVED
**1/4-14 DP3**
**Class 4471 & 4881**

**1/4-20 DP5**
**Class 4471**

STEEL DECK INSTITUTE sdi
**1/4-14 DP3**
**1/4-20 DP5**

| Item | SIZE | Point Type | LENGTHS | Load Bearing Length (MAX) | Box Qty |
|---|---|---|---|---|---|
| A | 1/4-14 3/8” HWH | DP3 | 3/4" | .125" | 2.5M |
| | | | 1" | .250" | 2.5M |
| | | | 1-1/4"[1] | .625" | 2M |
| | | | 1-1/2"[1] | .875" | 2M |
| | | | 2" | 1" | 1.5M |
| | | | 2-1/2" | 1.50" | 1M |
| | | | 3" | 1.25” - 2.4” | 1M |
| | | | 4" | 1.73” - 3.4” | 500 |
| | | | 5" | 2.5” - 4.4” | 500 |
| | | | 6" | 3.5” - 5.4” | 250 |
| | | | 8" | 5.5” - 7.4” | 250 |
| | | | 9” | 6.5” - 8.4” | 250 |
| | | | 10" | 7.5” - 9.4” | 250 |
| B | 5/16-12 3/8” HWH | DP3 | 1" | .250" | 1.5M |
| | | | 1-1/2" | .875" | 1M |
| | | | 2” | 1.25” | 1M |
| | | | 3" | 2.25" | 750 |
| | | | 4" | 3.25" | 500 |
| | | | 5” | 1.38 - 4.25” | 500 |
| | | | 6" | 2.50 - 5" | 500 |
| | | | 8" | 4.25" - 7" | 200 |
| C | 1/4-20 3/8” HWH 5/8” OD washer Face | DP5 | 1-1/2" | .500" | 2M |
| | | | 2-1/4" | 1.250" | 1M |
| | | | 2-1/2” | 1.500” | 1M |
| | | | 3-1/8" | 2.125" | 1M |
| | | | 4" | 3" | 250 |
| | | | 5" | 4" | 250 |
| | | | 6" | 2.50" - 5" | 250 |
| | | | 7” | 3.38” - 6” | 500 |
| | | | 8" | 4.25" - 7" | 500 |

## Drill Point and Length Selection



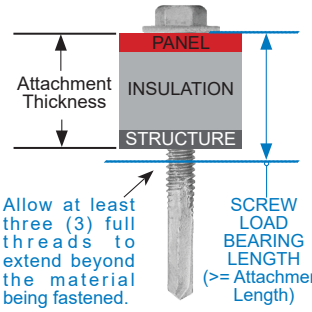

**1. Determine the Screw Drill Point Type**

a. Add up the total thickness that will be drilled by the screw.

b. Select the desired drill point (DP) type and screw size located on the size chart below.

**Drilling and Tapping Thickness**

| Screw & Point | Gauge | 24 | 20 | 18 | 16 | 14 | | 12 | 10 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Inch | .024 | .036 | .048 | .060 | .072 | .100 | .105 | .135 | .175 | .210 | .250 | .375 | .500 |
| | 1/4-14 DP1 | .024” - .072” | | | | | | | | | | | | |
| | #8-18 DP2 | .024” - .100” | | | | | | | | | | | | |
| | #10-16 DP3 | .024” - .175” | | | | | | | | | | | | |
| | #10-24 DP3 | | | .048” - .210” | | | | | | | | | | |
| | #12-14 DP3 | .024” - .210” | | | | | | | | | | | | |
| | 1/4-14 DP3 | | .035” - .250” | | | | | | | | | | | |
| | 5/16-12 DP3 | | | .048” - .175” | | | | | | | | | | |
| | #12-24 DP4 | | | | | | | | | .175” - .375” | | | | |
| | #12-24 DP5 | | | | | | | | | .175” - .500” | | | | |
| | 1/4-20 DP5 | | | | | | | | | .175” - .500” | | | | |




**2. Determine Screw Length**

a. Measure from the top surface of the material being fastened to the underside of the metal that will be drilled and tapped. Be sure to allow for any void or insulation. This is called the attachment thickness.

b. Select a screw length where the attachment thickness is less than or equal to the *Load Bearing Length* listed on the chart to the right.

All sizes are available with BOND-SEAL™ Sealing Washers.

TOOLING: Install using a 2,000 RPM screw-gun with torque control (DeWalt DW267).
***Do not use impact tools.***

## TECHNICAL DATA

| Fastener Diameter | Nominal Screw Diameter | Major Diameter (inch) | | Minor Diameter (inch) | | Tensile Stress Area (sq in.) | Torsional (lb-In) | Tensile (Pounds) | Shear (Pounds) |
|---|---|---|---|---|---|---|---|---|---|
| | | Max | Min | Max | Min | | | | |
| 1/4-14 | 0.250 | 0.246 | 0.240 | 0.192 | 0.185 | 0.0269 | 150 | 3,497 | 2,098 |
| 1/4-20 | 0.250 | 0.250 | 0.242 | 0.218 | 0.214 | 0.0360 | 156 | 4,680 | 2,808 |
| 5/16-12 | 0.313 | 0.315 | 0.306 | 0.244 | 0.236 | 0.0418 | 290 | 5,439 | 3,264 |

| Fastener Size | PULLOUT \| ALLOWABLE \| Grade 50/55 Steel 65Ksi Calculated Values In Accordance to AISI S100 \| Section E4 Applied Factor of Safety = 3 | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | 18 Ga. (.048") | 16 Ga. (.060") | 14 Ga. (.075") | 12 Ga. (.105") | 1/8" (.125") | 10 ga (.135") | 1/4" (.250") | 3/8" (.375") | 1/2" (.500") |
| 1/4-14 DP3 | 221.0 | 276.2 | 345.3 | 483.4 | 575.5 | 621.6 | 1,151.0 | | |
| 1/4-20 DP5 | | | | | | 621.6 | 1,151.0 | 1,726.5 | 2,302.1 |
| 5/16-12 DP3 | 276.2 | 345.3 | 431.6 | 604.3 | 719.4 | 776.9 | | | |

All information is non-binding and without guarantee. Before using the products, all specifications and calculations must be checked by a suitably qualified person and local regulations must be observed. This document is subject to revision. We reserve the right to make technical changes. (0321-1)