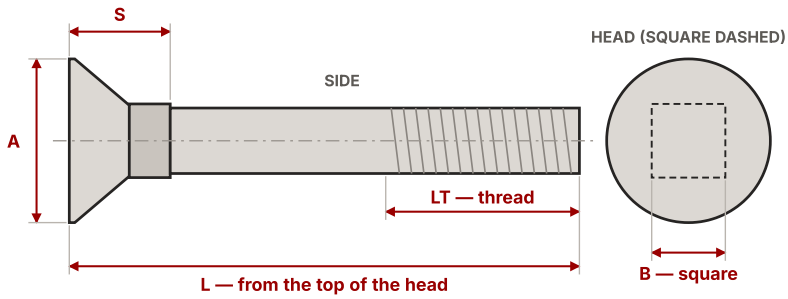
Plow Bolt Dimensions

jandesupply.com/reference-plow-bolt-dimensions.php

J & E Supply & FASTENER CO.

Head diameter, head and square depth, square neck width and minimum thread length for countersunk square neck plow bolts, 5/16″ to 1″. No. 3 head (regular and repair) and No. 7 head. ASME B18.9.

A plow bolt has a flat, **countersunk** round head that sits flush in a countersunk hole, so the working face stays smooth — road grader and snowplow blades, dozer edges, scoop shovels. A **square neck** under the head keeps it from turning while the nut is tightened. Because the head sits in the part, a plow bolt is measured **from the top of the head** to the end — the head is part of the length.



Letters match the table columns: **A** head diameter, **S** depth of head and square together, **B** square width, **E** body diameter, **LT** thread length, **L** length. Not to scale.

No. 3 head plow bolts, regular head — ASME B18.9 (inches)

SIZE	HEAD DIA A MAX / MIN	HEAD + SQUARE DEPTH S MAX / MIN	SQUARE WIDTH B MAX / MIN	BODY E MAX / MIN
5/16″	.605 / .578	.269 / —	.325 / .313	.312 / .299
3/8″	.708 / .671	.312 / —	.387 / .375	.375 / .360
7/16″	.826 / .781	.364 / —	.450 / .438	.438 / .421
1/2″	.945 / .890	.417 / —	.515 / .500	.500 / .483
5/8″	1.147 / 1.094	.506 / —	.640 / .625	.657 / .606
3/4″	1.303 / 1.250	.541 / —	.765 / .750	.782 / .729
7/8″	1.512 / 1.469	.626 / —	.906 / .875	.938 / .853
1″	1.700 / 1.656	.690 / —	1.031 / 1.000	1.062 / .976

The No. 3 head is the common plow bolt head. Head diameter minimum is for a sharp edge. A dash: our sources differ, or only one lists it — give us a call. The head's edge (feed) thickness, the head angle and the minimum depth aren't listed: our sources give different numbers for them.

No. 3 head plow bolts, repair head — ASME B18.9 (inches)

SIZE	HEAD DIA A MAX / MIN	HEAD + SQUARE DEPTH S MAX / MIN	SQUARE WIDTH B MAX / MIN	BODY E MAX / MIN
5/16″	.556 / .531	.232 / —	.325 / .313	.312 / .299
3/8″	.659 / .624	.272 / —	.387 / .375	.375 / .360
7/16″	.779 / .734	.324 / —	.450 / .438	.438 / .421
1/2″	.898 / .843	.375 / —	.515 / .500	.500 / .483
5/8″	1.096 / 1.047	.458 / —	.640 / —	— / .606
3/4″	1.252 / 1.203	.493 / —	.765 / —	.782 / .729
7/8″	1.465 / 1.422	.573 / —	.906 / —	.938 / .853
1″	— / 1.609	.637 / —	1.031 / —	— / .976

The repair head is a smaller No. 3 head; the standard calls for an **R** on top of the head to tell it from the regular head. A dash: our sources differ, or only one lists it.

No. 7 head plow bolts, regular head — ASME B18.9 (inches)

SIZE	HEAD DIA A MAX	HEAD HEIGHT S MAX	KEY LENGTH G MAX	KEY WIDTH
5/8″	1.121	.414	.363	—
3/4″	1.277	.440	.390	—

The No. 7 head has a small key under the head instead of a square neck. Only the sizes two of our sources agree on are listed; other No. 7 sizes and the No. 7 repair head — give us a call. Key width: only one source lists it.

Plow bolt minimum thread length — ASME B18.9

SIZE	THREADED TO THE HEAD UP TO	MINIMUM THREAD LENGTH	ON LENGTHS
5/16″	1″	7/8″	1-1/4″ to 6″
3/8″	1-1/4″	1″	1-1/2″ to 6″
7/16″	1-1/2″	1-1/8″	1-3/4″ to 6″
1/2″	1-1/2″	1-1/4″	1-3/4″ to 6″
5/8″	2″	1-1/2″	2-1/4″ to 6″
3/4″	2-1/4″	1-3/4″	2-1/2″ to 6″
7/8″	2-1/2″	2″	3″ to 6″
1″	2-1/2″	2-1/4″	3″ to 6″

The minimum thread length is twice the diameter plus 1/4″. Short bolts are threaded up to the head. Lengths between the two columns, and over 6″: give us a call.

Plow bolt length tolerance — ASME B18.9

SIZE	LENGTH, PLUS OR MINUS
1/4″ to 3/8″	±.03″
7/16″ and 1/2″	±.06″
5/8″ to 1″	±.12″

Good to know

Measure a plow bolt **from the top of the head**, not from under it — a 2″ plow bolt is 2″ overall. Match the head number and regular or repair head to the part it's going in: a 5/8″ repair head is 1.096″ across at most, a regular head 1.147″. Thread pitch and tap drill for each size are on the thread pitch chart; carriage bolts (round head, square neck) are on the carriage bolt chart.

Quick answers

How is a plow bolt measured?

From the top of the head to the end of the bolt — the countersunk head sits in the part, so it counts in the length (ASME B18.9).

How big is the square neck on a 1/2 inch plow bolt?

.500–.515″ across the flats (No. 3 head, ASME B18.9).

How big is the head on a 5/8 inch plow bolt?

A No. 3 regular head is 1.094–1.147″ across; the repair head is smaller, 1.096″ maximum.

How long is the thread on a 3/4 × 3 inch plow bolt?

At least 1-3/4″ — twice the diameter plus 1/4″.

What size square neck goes with each plow bolt size?

5/16″ – .313″, 3/8″ – .375″, 7/16″ – .438″, 1/2″ – .500″, 5/8″ – .625″, 3/4″ – .750″, 7/8″ – .875″, 1″ – 1.000″ (minimum, No. 3 head).

What is a repair head plow bolt?

A plow bolt with a smaller No. 3 head, marked R on top to tell it from the regular head (ASME B18.9). On a 5/8″ bolt the repair head is 1.096″ across at most, the regular head 1.147″.

Reference values drawn from the governing standards. For critical applications, confirm against the standard and the manufacturer's published data. Technical information disclaimer →