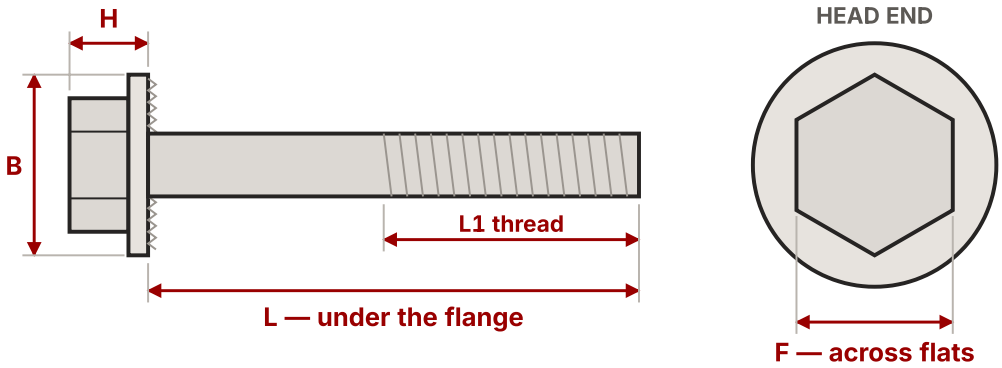
Hex Flange Bolt Dimensions

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J & E Supply & FASTENER CO.

Wrench size, flange diameter, head height and thread length for inch hex flange bolts (hex flange screws), serrated and smooth flange, 1/4″ to 3/4″. IFI-111.

A hex flange bolt is a hex head bolt with a round **flange** made in one piece under the head, so it works as its own washer and spreads the load. The **serrated** type has teeth under the flange that bite the surface and resist loosening; the **smooth** (plain) type doesn't. Both are the same size and take the same wrench. The length is measured from under the flange to the tip.



Letters match the table columns: **F** across flats (the wrench), **G** across corners, **B** flange diameter, **H** head height (flange included), **L1** thread length.

Hex flange bolts, serrated and smooth — IFI-111 (inches)

SIZE	WRENCH F	F MAX / MIN	CORNERS G MIN	FLANGE B MAX	HEAD HEIGHT H MAX	THREAD LENGTH L1 (6″ AND SHORTER)
1/4″	3/8″	.375 / .367	.409	—	.28	.750″
5/16″	1/2″	.500 / —	.548	—	.32	.875″
3/8″	9/16″	.5625 / —	.618	.81	.39	1.000″
7/16″	5/8″	.625 / .612	.685	.93	.46	1.125″
1/2″	3/4″	.750 / .736	.825	1.07	.51	1.250″
9/16″	13/16″	— / —	.895	1.19	.57	—
5/8″	15/16″	.9375 / .922	1.034	1.33	.62	1.500″
3/4″	1-1/8″	1.125 / 1.100	1.234	1.59	.73	1.750″

Same sizes for serrated and smooth flange, coarse and fine thread. Head height includes the flange. L1 is the standard's basic thread length for bolts 6″ long and shorter; a bolt shorter than L1 is threaded all the way. Serrated flange bolts are often sold threaded full length — check the part. A dash: our sources differ, or only one lists it — give us a call. Flange thickness and the over-6″ thread length aren't listed: we have only one source for them.

Good to know

Most flange bolts take the same wrench as a hex cap screw of the same size, but not all: a 1/4″ flange bolt takes 3/8″ (hex cap: 7/16″). A flange bolt's head is also taller than a hex cap screw's, because the flange is part of it. Hex cap screws are on the hex cap chart; the matching nuts on the hex flange nut chart.

Quick answers

What size wrench fits a 3/8 inch flange bolt?

A 3/8″ hex flange bolt takes a **9/16″** wrench (IFI-111), serrated or smooth.

What wrench size goes with each flange bolt size?

1/4″ – 3/8″, 5/16″ – 1/2″, 3/8″ – 9/16″, 7/16″ – 5/8″, 1/2″ – 3/4″, 9/16″ – 13/16″, 5/8″ – 15/16″, 3/4″ – 1-1/8″.

How big is the flange on a 1/2 inch flange bolt?

1.07″ across, maximum (IFI-111).

How tall is the head on a 5/8 inch flange bolt?

.62″ maximum, flange included.

How much thread is on a 1/2 × 3 inch flange bolt?

1.250″ of thread, the basic length for a 1/2″ flange bolt 6″ long or shorter.

Does a 1/4 inch flange bolt take the same wrench as a 1/4 inch hex bolt?

No: the flange bolt takes 3/8″, a 1/4″ hex cap screw 7/16″.

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