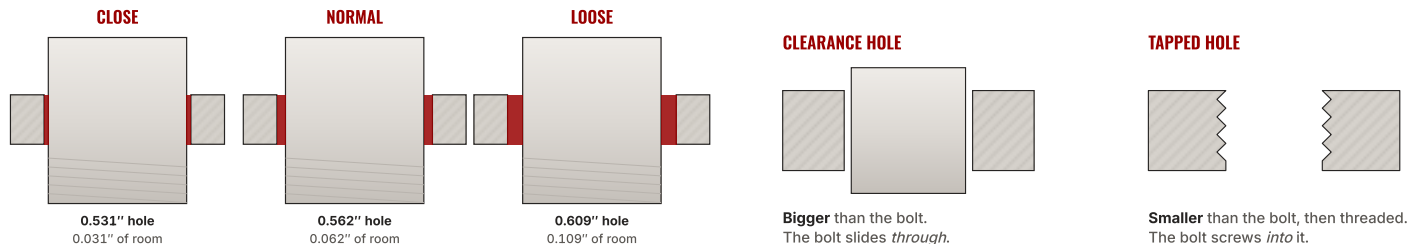


Bolt Clearance Hole Chart

jandesupply.com/reference-clearance-holes.php

Drilling a hole for a bolt to pass *through*? This is the size to drill — in close, normal, or loose fit. Not to be confused with a tap drill, which is for cutting threads.

A **clearance hole** is the hole a bolt slides **through** — in a bracket, a flange, a plate — before it threads into something or takes a nut. Make it a touch bigger than the bolt so the bolt isn't fighting the hole. How much bigger depends on the fit you need: **close** for precise alignment, **normal** for everyday assembly, **loose** when there's a coating, slop, or field misalignment to swallow.



A ½" bolt through a plate, drawn to scale and enlarged. The red is the room around the bolt. Numbers are the ½" row of the chart.

Don't mix them up. Need threads in the hole? Use the tap-drill chart instead.

Close fit

Tightest hole — for precise location with little play.

Normal fit

The everyday choice for general bolt-up.

Loose fit

Most room — for galvanized bolts, field work, or easy assembly.

BOLT SIZE	CLOSE FIT	NORMAL FIT	LOOSE FIT
#8	0.180"	0.196"	0.213"
#10	0.206"	0.221"	0.238"
¼"	0.266"	0.281"	0.297"
5/16"	0.328"	0.344"	0.359"
¾"	0.391"	0.406"	0.422"
7/16"	0.453"	0.469"	0.484"
½"	0.531"	0.562"	0.609"
5/8"	0.656"	0.688"	0.734"
¾"	0.781"	0.812"	0.906"
7/8"	0.906"	0.938"	1.031"
1"	1.031"	1.094"	1.156"

Hole diameters per ASME B18.2.8. Pick the standard drill nearest the value for your fit — the "normal" column suits most jobs.

Clearance hole vs. tap drill — don't mix them up

They're opposite jobs. A **clearance hole** (this chart) is **bigger** than the bolt, so the bolt passes *through*. A **tap drill** is **smaller** than the bolt, so threads can be cut *into* the hole. If you're cutting threads, you want the tap-drill chart instead.

Going through galvanized or coated parts? Lean to the loose column — the coating eats into the clearance. And for slotted or oversized structural holes, the connection design sets the size; ask if you're unsure.

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



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