U-Bolt Size Chart

Tip: Set your PDF viewer to "Actual size" before printing to maintain scale.

U-Bolt Sizes for Standard Pipe

Pipe Size (Nominal)	Pipe OD	U-Bolt Inside Diameter	Typical Thread Size	Inside Width	Thread Length
1/2"	0.840"	7/8" to 1"	3/8"-16	1-1/4" to 2"	2" to 3"
3/4"	1.050"	1-1/8" to 1-1/4"	3/8"-16	1-1/2" to 2"	2" to 3"
1"	1.315"	1-3/8" to 1-1/2"	3/8"-16	1-3/4" to 2-1/2"	2-1/2" to 3-1/2"
1-1/4"	1.660"	1-3/4"	3/8"-16 or 1/2"-13	2" to 3"	2-1/2" to 3-1/2"
1-1/2"	1.900"	2"	1/2"-13	2-1/4" to 3"	3" to 4"
2"	2.375"	2-1/2"	1/2"-13	2-1/2" to 3-1/2"	3" to 4"
2-1/2"	2.875"	3"	5/8"-11	3" to 4"	3-1/2" to 5"
3"	3.500"	3-1/2" to 4"	5/8"-11	3-1/2" to 5"	4" to 6"
4"	4.500"	4-1/2" to 5"	3/4"-10	4" to 6"	4" to 6"
5"	5.563"	5-1/2" to 6"	3/4"-10	5" to 7"	5" to 7"
6"	6.625"	6-1/2" to 7"	7/8"-9	6" to 8"	6" to 8"

Square U-Bolt Sizes for Square Tubing

Tubing Size	U-Bolt Inside Dimension	Thread Size	Inside Width	Thread Length
1" x 1"	1" × 1"	3/8"-16	2" to 2-1/2"	2-1/2" to 3"
1-1/4" x 1-1/4"	1-1/4" × 1-1/4"	3/8"-16	2-1/4" to 3"	2-1/2" to 3-1/2"
1-1/2" x 1-1/2"	1-1/2" x 1-1/2"	1/2"-13	2-1/2" to 3-1/2"	3" to 4"
2" x 2"	2" x 2"	1/2"-13	3" to 4"	3" to 4"
2-1/2" x 2-1/2"	2-1/2" x 2-1/2"	5/8"-11	3-1/2" to 5"	4" to 5"
3" x 3"	3" x 3"	5/8"-11	4" to 6"	4" to 6"

U-Bolt Dimension Definitions

- Inside Diameter: The width across the inside of the curved portion must match or slightly exceed the outside diameter of the pipe or object being clamped
- Inside Width: The distance between the two threaded legs must accommodate the object plus any backing plate or saddle thickness with clearance
- Thread Size: The diameter and pitch of the threaded ends (e.g., 3/8"-16 means 3/8" diameter, 16 threads per inch)
- Thread Length: The length of threaded portion on each leg must be sufficient to pass through mounting surface, backing plate, and nut with proper engagement

Selection Tips

- $\bullet \ \, \text{For insulated pipe, measure the OUTSIDE diameter including insulation and select U-bolt accordingly}$
- Always use a backing plate or saddle to distribute clamping force and prevent pipe deformation
- \bullet Ensure minimum thread engagement of 1.5× bolt diameter in the nut for full strength
- Inside width must accommodate backing plate thickness plus 1/4" to 1/2" clearance
- For vibration applications, use lock washers or thread locker to prevent loosening

Material Specifications

Material	Finish Options	Typical Applications	Corrosion Resistance
Carbon Steel	Plain, Zinc plated, Black oxide	Indoor, general purpose, automotive	Low to Medium

Material	Finish Options	Typical Applications	Corrosion Resistance
Hot-Dip Galvanized	Silver/gray coating	Outdoor, marine (moderate), weather exposed	High
Stainless 304	Natural finish	Food processing, marine, chemical (mild)	Very High
Stainless 316	Natural finish	Marine, chemical processing, salt water	Excellent
Brass	Natural or polished	Decorative, non-magnetic, electrical	Good

Common Thread Specifications

Thread Size	TPI	Minor Dia.	Drill Size for Clearance	Recommended Torque
3/8"-16	16	0.302"	13/32" (0.406")	25-30 ft-lbs
1/2"-13	13	0.400"	17/32" (0.531")	45-55 ft-lbs
5/8"-11	11	0.507"	11/16" (0.688")	75-90 ft-lbs
3/4"-10	10	0.620"	13/16" (0.813")	110-130 ft-lbs
7/8"-9	9	0.731"	15/16" (0.938")	150-175 ft-lbs

Note: Torque values are for lubricated Grade 2 steel fasteners in typical applications. Adjust for material, lubrication, and specific requirements.

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