



AUTO BOLT

Solving Your Critical Design Problems



Auto Bolt.

The Experience
You Need.

The Service
You Expect.



Your Partner

Auto Bolt is a proud American cold-heading bolt manufacturer with more than 70 years of experience in quality bolt-making. We specialize in low-to-high volume, high-performance and commercial fasteners for many industries including automotive, truck and trailer, heavy construction, agriculture, military, material handling and outdoor power equipment.

Auto Bolt offers extensive fastener knowledge at all levels of the organization. We provide a customized approach starting with quick, accurate quoting and carrying through to CAD drawings, die design and delivery.

With products that are domestically made in a state-of-the-art facility in Cleveland, Ohio, Auto Bolt works directly with customers and distributor partners to customize a solution rather than one-size-fits-all products.



ALL PRODUCTS ARE PROUDLY MADE IN THE USA

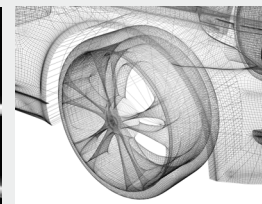


Challenges Faced by Engineers

Every day you face challenges when designing your application. Some challenges you can work around, some can derail you if you're not careful and others you haven't even thought of yet. At Auto Bolt, we understand many of the challenges you face and can help you navigate through them. We're used to guiding engineers through:

- **Assembly Challenges.** This is an area where customers can lose a lot of time due to inconsistency across parts. Sometimes a simple dimensional change needs to be made to the part. Sometimes you need to adjust the lead on the thread or thread length to get proper engagement. Sometimes it's adjusting other features such as head dimensions, body, or length. We've been there, we can help.
- **Corrosion Challenges.** Environment and temperature changes can wreak havoc on your application. We're working diligently with our platers and our customers to prevent premature failure due to corrosion.
- **Inconsistent Clamp Load Challenges.** You've been trying to get a certain clamp load for the fastener and your entire assembly must be tight. But you're just not getting there. Maybe a simple coefficient of friction change might help. Maybe it's a bigger issue. We've seen it all and we work with the leading industry plating chemical suppliers and platers.
- **Material Challenges.** You have a strength requirement and you want to assure the material is up to the task. We make material recommendations every day.
- **Constraint Challenges.** Your assembly has certain parameters. Your fastener needs to fit, no ifs, ands or buts. We specialize in making the part fit the assembly in a specific way.
- **Aesthetic Challenges.** The head marking has to be pristine and the parts have to look good right out of the box. We can talk you through the pros and cons required to overcome that challenge.
- **Delivery Challenges.** The order must deliver on time. Period. We understand. Period.

At Auto Bolt, we know everyone has challenges. But the solutions to each challenge are unique to each customer. Whether you're talking to our sales rep, quality team or engineers, we'll listen to your needs and craft the proper solution to make sure your application is done right the first time.



Our **In-House** Capabilities

◆ **High-Speed Bolt Making**

Auto Bolt's high-speed bolt making process delivers parts complete off the machine that are headed, pointed, threaded and ready for heat treat. This process also allows for more competitive pricing by streamlining production.

◆ **Cold Heading – Single and Multi-Die Capabilities**

Multiple station cold forming machines complete forming on a broad range of materials including low and medium carbon, boron, alloys, 300 and 400 series stainless steel, brass, aluminum and silicon bronze.

◆ **Roll Threading/Knurling**

Auto Bolt has automatic and hand fed thread rollers. Our capabilities allow for various types of knurling and threading, offering a more customized solution.

◆ **Trimming**

Our trimming services allow you to further customize fasteners in non-net shapes for custom bolt heads. Like most other Auto Bolt services, trimming is also a high-speed process.

◆ **Extruding**

Our capabilities allow us to extrude in multiple shapes beyond a standard round, with expertise in special configurations.

◆ **Straightening**

Longer length bolts can bend during heat treating. Auto Bolt completes straightening as a secondary process to ensure that the final product meets customer specifications.

◆ **Shaving**

Auto Bolt performs the secondary process of shaving by machining, grooving and shaping parts to specifications.

◆ **Sorting/Light Assembly**

Sorting and light assembly is available.

◆ **Tool Design/Tool Manufacturing**

Auto Bolt engineers use AutoCAD to creatively design cold heading tools. Then, using our fully staffed in-house tool room, we make tools as needed. We also utilize outside services to help support our tool-making needs.

◆ **Head Marking Programs (Customer Logo)**



Our capabilities also include secondary processes from outside vendors:

- ◆ Drilling/ Grinding and Machining
- ◆ Heat treating
- ◆ Plating (electroplating and organic)
- ◆ Passivation
- ◆ Patching
- ◆ Sorting

“Auto Bolt offers competitive pricing and delivers quality product”

- Darling Bolt



“Auto Bolt is has been a valuable supplier to us in support of our military contracting efforts”

- Alamo Aircraft LTD

“Auto Bolt’s attention to detail has been fantastic and when thinking of quality and on-time delivery, Auto Bolt is second to none.”

- Maxion Wheels



“Auto Bolt is competitive, has great quality, and excellent customer service”

- Boeing Distribution

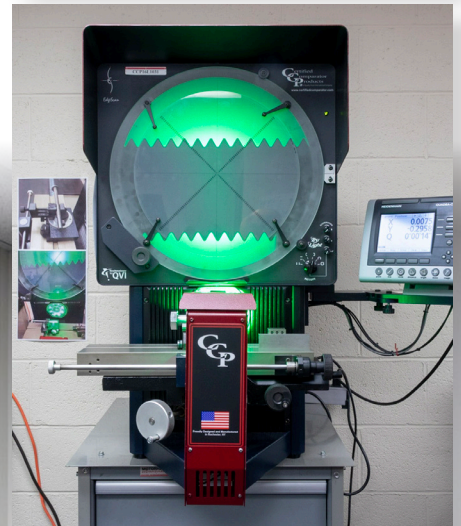
Quality Assurance

As an ISO 9001: 2015 Certified Company, our quality assurance department ensures that products are laboratory-tested through all phases of production. Tolerances are consistently held to industry specifications, whether for a small job or long production run. Our lot control system ensures complete traceability back to the raw material manufacturer.

Available documentation:

- PPAP
- ISIR
- APQP
- Additional documentation available upon request

IATF-16949 is on track to be in place in 2020.

A large chart titled "Hardness Scale Conversions" is mounted on the wall. It contains a grid of numbers representing different hardness scales and their corresponding values. The chart is used for converting between various hardness measurement systems.

Bolts

- **Bolt Grades:** 2, 5, 8, 9, B7, B16 and (307 A)
- **Bolt Classes:** 4.8, 8.8, 9.8, 10.9, and 11.9
- **Stainless Steel Grades:** 300 and 400 Series
- **Standard Product manufactured to SAE J429**
- **Carbon steel grades:** SAE 1008, 1010, 1018, 1038, 1541, and 10B21
- **Alloy steel grades:** SAE 1335, 1541, 4037, 4140, 5140, 8620, 8637, and 8740
- **Coatings:** Zinc, Zinc yellow, Phos and Oil, Black Oxide, Cadmium, Organics

Head Styles	Size Ranges	Diameter Range Inches	Diameter Range Metric Equivalent	Length Range Inches
	12-point bolts	1/4"-1 1/8"	M6-M27	3/8"-11"
	Bumper bolts	1/4"-1 1/8"	M6-M27	3/8"-4"
	Carriage bolts	1/4"-1 1/8"	M6-M27	3/8"-11 3/4"
	Fillister head spring bolts	1/4"-1 1/8"	M6-M27	3/8" -11 3/4"
	Flat head bolts	1/4"-1 1/8"	M6-M27	3/8" -11 3/4"
	Hex flange bolts	1/4" -1 1/8"	M6-M27	3/8"-8"
	Hex head cap screws	1/4" -1 1/8"	M6-M27	3/8" -11 3/4"
	Hex shoulder bolts	1/4" -1 1/8"	M6-M27	3/8"-11 1/2"
	Pan head bolts	1/4" -1 1/8"	M6-M27	3/8" -11 1/2"
	Place bolts	1/4" -1 1/8"	M6-M27	3/8" -11 3/4"
	Plow bolts	1/4" -1 1/8"	M6-M27	3/8" -4"
	Rivets	1/4"-1 1/8"	M6-M27	3/8" -11 1/2"
	Round head bolts	1/4"-1 1/8"	M6-M27	3/8" -11 1/2"
	Six-lobe bolts	1/4"-1 1/8"	M6-M27	3/8"-11 3/4"
	Socket cap screws	1/4"-1 1/8"	M6-M27	3/8"-11 3/4"
	Square head bolts	1/4"-1 1/8"	M6-M27	3/8"-11"
	Weld studs	1/4"-1 1/8"	M6-M27	3/8"-4"
	Wheel bolts and studs	1/4"-1 1/8"	M6-M27	3/8"-4"
	Pins	1/4"-1 1/8"	M6-M27	3/8"-11 3/4"
	Other special bolts	Varies	Varies	Varies

* Length range inches will vary depending on machine.



About Auto Bolt

You need a partner who gives you a customized approach that starts with quick, accurate quoting and carries through to CAD drawings, die design, and finally, delivery. You need American craftsmanship that delivers value, including better quality and greater durability. You need a partner... so you can focus on the efficiency and growth of your business.

Auto Bolt will deliver a personalized customer experience that ensures the success of your project. Whether you know exactly what you need and can simply send us your print, or if you need guidance and engineering support, we're there to make the process as friction free and seamless as possible.

Every day, we deliver highly engineered products at a price you can afford.

Move beyond service and enjoy the Auto Bolt Experience.

- Founded in 1948
- Family owned and operated since 1996
- 130,000-square-foot facility
- 70+ employees
- ISO 9001:2015 Certified
 - IATF16949 is on track to be in place in 2020
- Onsite QA lab
- QSLM Certified, Class 2 & 3

Auto Bolt's Core Values

- **Attitude** - We're all in
- **Integrity** - Do the right thing
- **Service** - Customer focused throughout
- **Growth** - We recognize and embrace growth because growth is critical
- **Pride** - Hold your head high





AUTO BOLT

To request a quote or learn more about the Auto Bolt Experience,
visit our website: <https://www.autoboltusa.com/request-a-quote>

The Auto Bolt Company

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