

CAPABILITIES



WEBER KNAPP IS AN A THROUGH Z TURN KEY COMPANY.

Transforming your ideas or prints to produce drawings, samples and finally a quality manufactured product packaged and shipped to your preference.

- Progressive Die Stamping
- Product Design Engineering
- CNC Laser Cutters
- Powder Coating
- Testing
- Plating
- Robotic Welders
- Model Shop
- Short Run Department
- CNC Turning
- CNC Routers



C O M P A N Y

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About Weber Knapp

Companies sprout instantaneously in this software driven world with too many folding just as quickly. This is not so with Weber Knapp. A century old, Weber Knapp is a true survivor where values like old world craftsmanship are given equal billing with Lean Manufacturing, CNC, and SPC. Decades mean we've "ironed out" every kink and polished every technique. We've perfected the latest machine and fabrication processes, integrated engineering with research and development, and tied everything back to careful prototype testing and quality control programs. We've discovered new markets, new products, and new applications.

Weber Knapp was founded at the turn of the century as a manufacturer of hardware for the furniture industry. By the 1960's, company engineers had devised a revolutionary counterbalanced hinge device that quickly found its way into a wide array of products from furniture to food processing equipment, to medical and office products. Other motion control solutions include applications such as centrifuges and door supports for refrigerated cabinets. Weber Knapp is also a major resource of designer hinges for the residential furniture industry.

Today, Weber Knapp leads the ergonomics industry with state-of-the-art spring assisted products, all manufactured by 200 skilled workers with in 265,000 Sq. Ft. of space. Experience has taught us to listen. We got where we are today by focusing our high caliber engineering expertise toward working with customers to come up with unique solutions to their specific design challenges.



Engineering Capabilities

Model Shop and Short Run Departments

Weber Knapp's Model Shop and Short Run Departments offer many potential advantages for customers. The Model Shop serves as an extension of Product Design Engineering, with fast turn-around of functional prototypes. Additionally, the area supports low volume production requirements and acts as a hedge against interrupted supply of purchased components.

In addition to typical manual equipment such as lathes, mills, drill presses and the like, the Model Shop also includes computer-controlled machines. The Short Run Department is really an extension of the Model Shop and includes CNC turning centers, CNC laser cutters, and hydraulic brake presses. As well as supporting prototype builds, the Short Run Department offers an avenue to bridge the lead-time gap between initial product launch and availability of production tooling. It also provides the means by which a customer can introduce a product to the market without significant tooling investment. Weber Knapp's unique methods using laminated dies produce products that are nearly identical to those manufactured on fully tooled progressive dies, offering a seamless transition between low and high volume production.

Robotic Welders

Although low to medium volume production jobs still require manual welding, Weber Knapp addresses higher volume production needs with two, 7-axis, MIG robotic welders. The 48" long dual table allows separate programs to be run on each side. The equipment is capable of coordinated motion and weave welding and produces strong, consistently welded joints.

Progressive Die Stamping

Weber Knapp's manufacturing operations include ten primary and eleven secondary hydraulic presses. Coil-fed automatic primary presses range from 50 to 300 tons. Secondary presses range from 35 to 110 tons. Our quick change clamping process significantly reduces set-up time and increases productivity. Weber Knapp's unique tool methods include design of a master die with interchangeable components, providing maximum flexibility, reduced handling during changeover and, ultimately, lower overall costs.

Production flexibility and cost minimization is further enhanced by our in-house steel coil slitting operation. Steel coil stock is purchased in only a few commonly available widths and then slit to size in-house for specific jobs. This allows rapid inventory turn-over and maximum customer responsiveness.

Testing

Weber Knapp operates our own test facility, which is equipped for both static and dynamic product validation. Our cycle testing lab is constantly updated to conform to new testing methods and new product requirements. Prototypes are tested and certified to meet customer specifications and/or standard industry specifications. All Weber Knapp Company products are unconditionally warranted to meet the performance standards of the customer.

CNC Laser Cutters

CNC laser cutters are used to support product development, prototype manufacture, and production jobs for which the cost of full progressive die tooling is not supported by projected volume. Two CO2 laser cutters, 4000 Watt and 1800 Watt, are fully programmable and capable of producing highly complex shapes. These pieces are most often used as blanks to feed secondary forming presses or CNC brake presses, although the lasers are also used to produce flat components such as link arms. The equipment accepts sheet sizes up to 5' x 10' and can cut carbon steel up to 1.0" thick (0.50" for stainless steel, 0.375" for aluminum), as well as nylon and Delrin sheets up to 0.125" thick. It also cuts and scribes wood. Rotary axis capability is available for tube-cutting and scribing.

CNC Router

A CNC router, guided by GE FANUC 180i controls, gives Weber Knapp the ability to cut and profile a variety of materials, such as laminates, phenolic composites, wood, plastics, and aluminum of varying thickness. Dual spindles are run by a 30 hp motor with speeds up to 30,000 rpm, producing a high quality edge without the need for finish machining. The maximum work piece size is 5' x 10', with a feed rate of 3,150 inches per minute. The router includes an aggregate-ready tool changer for up to 8 tools with a maximum diameter of 6.5".

CNC Turning Capabilities

Weber Knapp's manufacturing capabilities include one CNC turret lathe and two Swiss style CNC turning centers. The heavy duty, 12-tool, turret style lathe is capable of turning bar stock up to 2 3/4" in diameter. Two Swiss style turning centers employ live cross tools and synchronized primary and secondary spindles for turning bar stock up to 3/4" in diameter. The equipment is completely programmable to operate unattended in off-hours.



Electro Plating Department

Electro Plating

Weber Knapp is a leader in plating services for metal fabricators. One of the many specialties of our services is the Copper, Brass, Black Oxide, Nickel and Zinc electro-plating for small bulk process parts. Our dedicated plating department spans 265,000 Sq. Ft. allowing for a large expansion depending on the needs of our customers. If you have custom sizes that are not our standard 1/2 pound or 80 square inch maximum per plated piece, contact us directly for options on your project.

Capabilities

- Lab testing for plating analysis
- Bulk water based painting
- Bulk antiquing for brass and copper
- Lacquer department for bulk lacquer process
- Emeralon finishing for dry film lubricant
- 265,000 sq ft allows for room of development, manufacturing and storage
- Custom metal stamping and sheet metal including laser cutting, MIG welding
- Vibratory finishing deburring
- A complete environmental water treatment system housed within the facility



Contact our sales team for more details

on a specific proposal for our engineering and manufacturing capabilities.