

Quick guide

COMPONENTS FOR METALWORKING AND WOODWORKING MACHINES



Help choosing the right components for wood and metal processing machines.

If you're designing or installing a woodworking machine, such as a band saw, or a metal processing machine – a surface planer, for example – you'll need components that can dampen vibration and noise. Comfort and ease of use should also be a consideration, so think of factoring in ergonomics in your metal processing or wood production process. Your components will see constant use, in some cases, 24/7, so they'll need to be durable to ensure the machine's longevity, preventing failure and downtime. Safety for the operator is another concern, so quality should be a priority. Quality components will also ensure the protection of your machine and the product being manufactured.

The components we recommend in this guide are ideal for whatever you're designing, whether a lathe or a milling machine. That goes for drill press, dovetailer, boring machine, or an Ironworker machine design. Press brake machine components, for example, can also be used on mitering machines, and vice versa. If you're not sure if a component here is right for your application, we're happy to answer any questions.

You'll also need to think about masking solutions for painting the machine's external panels and walls. Consider our high-temperature **masking flangeless plugs** and **masking tapes**.

To make your job easier, we've made available **free samples** on most of our solutions, so you can try before you buy. You can also **download free CADs** of our solutions to help with designing your application.

METAL MANUFACTURING MACHINES

The CNC machine manufacturing process can involve many different materials, such as metal, wood, glass and plastic. In this section, we will only refer to metal. If you're considering components, you already have an idea of how to design a CNC milling machine. Choosing components will influence your design, so here's a look at the small parts you should consider.



STUD MOUNT LEVELING FEET

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Industrial leveling feet with a swivel base adjust to uneven surfaces to level your machining center. The articulated feet and large diameter pads provide solid leveling and support. Nylon base and steel thread.

Typically used: underneath machine



VIBRATION MOUNTS – HEAVY DUTY

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Similar to screw-on rubber feet, these vibration mounts absorb shock and reduce the noise common in industrial metalworking machinery. High adhesion to the floor and made of TPE. Also available: [vibration mount grommets](#), which act as a buffer and absorb vibrations.

Typically used: underneath machine



PULL HANDLE ASSEMBLIES

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Tubular handles come in a three-piece design with many standard and custom tube-length options. These allow for a greater operating length and feature front mounting with counter-bored thru holes. Stainless steel.

Typically used: machine doors



METAL ONE-PIECE PULL HANDLE

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Bridge handles have a solid industrial design with an ergonomic grip and recessed front-mounting through-hole design for fasteners. Rear female threaded blind hole. Made of aluminium. Also available: screw-mount [recessed handles](#).

Typically used: machine doors



SEALING GASKETS

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Make sure that door gaskets and seals are one of your CNC machine components. The clip-on profiles offer edge protection and a snug seal. Used on metal sheet, they protect against vibrations and ingress of humidity and dirt. Available in EPDM and PVC. Also available: weather-stripping tape, which also works as gasket tape.

Typically used: inside machine doors and panels



FAN FILTER SET

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Your CNC Machine design will need components for the control panel. The fan, which cools your PCB components, will need to be kept in good working order. Our fan filter set helps you ensure that, with a fan guard, fan filter cover, fan filter mesh sheet, and felt filter. Fan size: 120.0 mm.

Typically used: machine control panel





FAN GUARDS, METAL, SCREW MOUNT

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Fan guards help protect the computing application of your CNC machine design. They prevent debris from falling into the fan blades and causing an obstruction. Simple to install screw-mount application. Made of steel wire.

Typically used: machine control panel



PCB SUPPORT PILLARS

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Your PCB hardware components should include PCB spacers mounted on both sides with a low profile two-prong fastener. One side is locking and the other is a releasable snap-fit. Available in a variety of styles. Operating temperature range: -40°F to 185°F. Nylon 6/6.

Typically used: machine control panel



CIRCUIT BOARD INSTALLER AND EXTRACTOR

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Plastic card guides are strong and rigid with optimum leverage to assist in both inserting and extracting the PCB of your sheet-metal press-tool design. Operating temperature range: -40°F to 194°F. Nylon 6/6. UL94 V-2

Typically used: machine control panel



PCB STANDOFFS – ROUND/INSULATOR

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Male-to-female standoffs are installed by hand without the need for assembly equipment. The round standoffs are ideal for CNC machining and manufacturing, when high mechanical strength is required. They provide sturdy, insulated spacing for high-power electronic applications. Nylon with brass inserts. UL94 V-2.

Typically used: machine control panel

ADJUSTABLE LATCHES

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Designed for flexibility and the security of metalworking machines. The secondary locking button prevent accidental opening and the latch can be fitted using standard M4 fittings. The keeper is supplied with the latch. Made of stainless steel.

Typically used: machine doors and panels



ADJUSTABLE TORQUE HINGES – WITH LEAF SCREW

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Basic components of Vertical Milling Machines, adjustable torque hinges hold doors or panels in position. They operate with a single torque adjustment using the stainless-steel screw. Available in different styles, in zinc alloy or nylon, and with maximum rotations of 150°, 180° or 270°.

Typically used: machine doors



BALL KNOBS

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Ball knobs are ergonomic in design and necessary as one of your grinding machine parts. It forms your gear levers and comes in a wide selection of diameters and molded-in inserts. Available in PP or for a softer grip, a PP base with a TPE over-mold. Threads available in steel, brass or self-tapping.

Typically used: handles for gear levers



CAM LATCHES – LIFT AND TURN

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Ideal as one of your dovetailer machine parts. Low-profile swing handle stows away when not in use. Simple to install, using either a bracket or snap-in fastener. Consists of a slam-action spring-loaded handle. Available in keyed alike, key to differ, or a button to press. You might also consider a flush compression lever latch, which helps seal against vibrations.

Typically used: machine cabinets or electrical boxes



HANDLE TURN CAM LATCHES – L-HANDLE

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L-handle cam latch comes with standard key-cylinder locking. Available in black or chrome finish and keyed alike, keyed different or keyless.

Typically used: machinery covers, doors, cabinets and panels



WOOD MANUFACTURING MACHINES

Wood engraving machines, laser wood-cutting machines, wood sanding machines, industrial wood saws – these and other different woodworking machines will need the same small components.

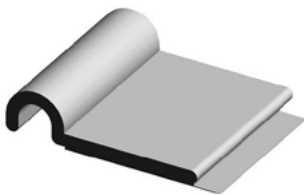


CABLE CLAMP

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Will space be limited in your table-saw design or sheet metal press machine design? This adhesive mount U-clip has a low profile, making it ideal for saving space. Good for mounting bundles in corners or along edges. Operating temperature range: 32°F to 122°F. Made of PVC. UL94 V-0.

Typically used: mounting bundles in corners or along internal edges



STANDARD CABLE TIES

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Tough, high-quality cable ties suitable for industrial woodworking machinery. The locking cable tie prevents accidental removal. Available in black and natural. Nylon 6/6. UL94 V-2. Also available: releasable cable ties.

Typically used: inside machines



OPEN CABLE GROMMETS

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Standard grommets snap in place for quick and easy installation. They protect the wires and cables that pass through the panels of your milling machine. Flexible PVC.

Typically used: internal machine panels



HOSE CLAMPS

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Suitable for suction hoses that extract wood dust and chips from wood turning machines and grinding equipment. This mini worm-drive hose clamp has a low-profile housing and thin band, making it easier to install or remove in a confined area. Sized to SAE standards and can be used to secure our hose protection sleeves on smaller diameter hose assemblies. Stainless steel.

Typically used: suction hoses

HOSE STRAPS

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This heavy-duty cinch strap is ideal when extra strength is needed. It consists of a hook-and-loop design closure, which holds hoses securely. Hoses can be expanded or contracted during start up or shut down of your mitre machine. Users can add, remove or adjust hoses or bundled hoses quickly, while the time to install normal hose assemblies is cut in half. Woven nylon webbing with a nickel-plated delrin buckle.

Typically used: heavy hose assemblies



SPIRAL WRAP HOSE PROTECTOR

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Spiralguard® – spiral hose wrap – protects the hoses of your CNC milling machine design with anti-crush control. It also reduces abrasion tear and wear, increasing the life of your hose, minimizing expensive downtime and increasing operator safety. Available in black or yellow. Made of HDPE.

Typically used: hoses



COMPRESSION CAM LATCHES

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Adjustable compression latches come with a T-handle knob. The added compression provides a more secure seal and improved insulation against noise and vibration conditions commonly generated by beveling & scribing equipment and deburring machines. Comes with a driver key cylinder and is available in zinc alloy with a chrome-plated finish.

Typically used: machine covers



CLAMPING KNOBS – FLUTED

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Fluted clamping knobs provide an ergonomic grip. Stylish, yet functional, these scalloped knobs come in flexible mounting options: studded, threaded insert and through-hole. Ideal for the many mechanical clamping conditions in the woodworking industry. Available in PP.

Typically used: jigs, fixtures and adjustable machine parts



BLANKING PLUGS

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Used on sheet metal to protect against sharp edges. They are a quick solution for closing panel cavities in wood carving machines, providing a clean finish. Available in non-staining PVC with excellent aging properties and TPE, which is resistant to oils, acids and alkalis.

Typically used: machine panels



RECTANGULAR GLIDE

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Insert and glide with ribbing fits 11-19 gauge tubes. Its polished shell enhances the aesthetic appearance to wood chipping machine, wood lathe machine and CNC wood carving machine designs. LDPE.

Typically used: machine fabrication



VENT PLUGS

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The wood-production process and wood-bending process generate excessive heat, which makes this heat-stabilized nylon vent plug a necessity. It locks securely into sheet metal, allowing heat and emissions to escape. UL94 V-2.

Typically used: machine fabrication



BOLT PROTECTION CAPS

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Bolt nut protection caps protect industrial wood-cutting machines by preventing tampering. They're also a cost-effective option to enhance the finished appearance. LDPE.

Typically used: machine fabrication



FEMALE CLAMPING HANDLES

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Black-flared female clamping handle has a rubber overlay grip for an ergonomic handle design for industrial wood table saws and other wood processing machines. Mounts onto male threaded applications, providing adjustable clamping action. PP with glass-reinforced fibers.

Typically used: as a height adjustment mechanism



TUBE END GRIPS

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Round ribbed grips are ideal for applications requiring a strong finger grasp. The safety grip handles are flexible and durable material, fitting standard bar sizes and won't tear, split or shred. Made of PVC.

Typically used: machine handles and levers

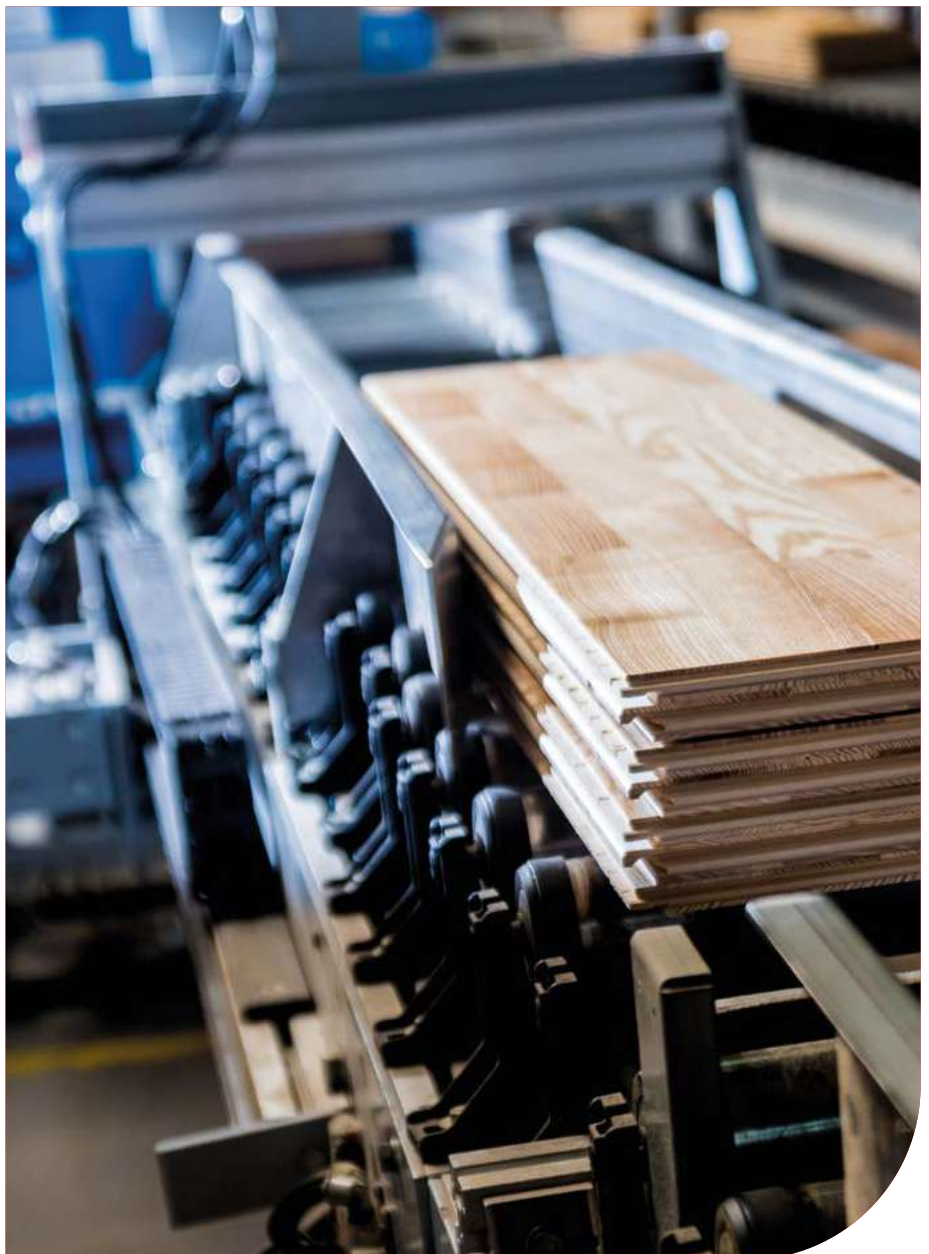


MANUAL HOLD-DOWN CLAMPS

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Horizontal manual hold-down clamps for wood processing methods have a low-height design to save space and cushioned, ergonomic handle grip. The handle and hold-down bar move in opposite directions to provide secure holding capacity. Corrosion-resistant zinc-plated steel and PVC.

Typically used: during production





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