

Metalforming Surrounds, Supports and Gives Structure to Your Life!

From the time you get up in the morning to the time you go to bed, the metalforming industry impacts your every move! From your bed frame to your shower head - from the pop-up toaster to your door lock - from your car, the bus, or the train - from a computer monitor to a bulldozer - to inline skates or an amusement park ride or a rocket pushing off into space - metalforming plays a role! In a typical four bedroom home alone, there are over 150,000 items that are manufactured by the metalforming industry. This nearly invisible but highly influential industry keeps your life comfortable, safe and secure.

What are the Common Metalforming Processes?

Metal Stamping utilizes mechanically or hydraulically powered presses ranging in size from those required to form small electronic components to huge presses used in the production of large automobile and airplane panels. Continuous strips of metal or individual blanks are positioned in the press and shaped between tooling forced into the materials by a powerful ram. Look at a simple desk stapler - It forms parts in the same way that a press does!

Sheet Metal Fabrication covers a variety of metal forming operations such as Press Brake, CNC Turret Punch Press, Laser Cutting and welding. Most Press Brakes are manually fed by an operator who holds a metal workpiece between a punch and die and against a gauge to provide a pre-set bend or series of bends in the metal, making it ideal for producing bent parts such as enclosures and cabinets. A CNC Turret Punch Press is used to sequentially punch a series of shapes or parts, following a computer-controlled blueprint. Laser Cutting uses a powerful, highly focused beam of computer-guided light to fashion desired shapes from materials up to ½" thick.

Slide Forming is a continuous stamping process that can convert metal strips or wire into small intricate curved shapes, such as springs and electronic connectors. Stock is fed into the slide-forming machine where it is cut into blanks and then bent around a mandrel by a number of cam driven forming tolls to create a desired shape.

Metal Spinning produces hemispheres, cones, venturis and other similar shapes from flat metal discs or blanks which are rotated on a lathe and pressed against a tool to duplicate its shape.

Roll Forming is a continuous bending operation where a sheet or strip of metal passes between one or more sets of rotating dies such as channels, angles or panels.

| Here are just a few ways the metalforming industry gives form to your life! | |
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| Automobiles | Car Bodies, Motors, Transmissions, Pulleys, Brakes, Fenders, Bumpers, Pistons, Valves, Handles, Motorcycles and Air Bag Components |
| Buildings and Roads | Bulldozers, Derricks, Paving Equipment, Window Frames, Doorknobs, Keys, and Key Locks |
| Cosmetics | Tweezers, Lipstick Cases, Powder and Pill Containers, Eyeshadow Tubes, Combs, Brushes, Razors, and Razor Blades |
| Education | Pens, Staplers, Projectors, Buzzers, Bells, Chairs, Pencil Sharpeners, Computer Components, Copy Machines, Paper Clips, Desks |
| Farming | Plows, Tractors, Combines, Fencing, Pitchforks, Shovels, Milking Machines, Axes, Saws |
| Medical | Beds, Hypodermic Needles, Surgical Devices, Earplugs, Scalpels, Depressors, Trays, Scales, Sinks |
| Recreation | Musical Instruments, Skateboards, Dolls, Transformers, In-Line Skates, Hot Wheels, Exercise Equipment, Video Cartridges, Bicycles, Drums |