

Equipment

- Solid modeling computer aided design and computer aided engineering
- The use of computer software to simulate performance in order to improve product designs or assist in the resolution of engineering problems for a wide range of industries. This includes simulation, validation and optimization of products, processes, and manufacturing tools.
- Multi-Axis CNC (computer numerical control) machines
- Multi-axis machining involves using a CNC to move a part or cutting tool along different axes simultaneously. This enables the machining of very complex parts
- Precision cutting
- Waterjet - used during fabrication of machine parts. It is the preferred method when the materials being cut are sensitive to the high temperatures generated by other methods
- Laser - used is for cutting metal plates. On mild steel, stainless steel, and aluminum plate, the laser cutting process is highly accurate, yields excellent cut quality, has a very small kerf width and small heat affect zone, and makes it possible to cut very intricate shapes and small holes.
- HD plasma - plasma arc is forced through a smaller nozzle to achieve cleaner, squarer cut edges while at the same time achieving acceptable parts life in the torch.

Welding:

- TIG - TIG stands for tungsten inert gas and is technically called gas tungsten arc welding (GTAW). The process uses a non-consumable tungsten electrode that delivers the current to the welding arc. The tungsten and weld puddle are protected and cooled with an inert gas, typically argon. TIG welding is similar to oxy-acetylene welding in that you use a filler material for build-up or reinforcement
- MIG - MIG stands for metal inert gas and is an arc welding process in which a continuous solid wire electrode is fed through a welding gun and into the weld pool, joining the two base materials together. A shielding gas is also sent through the welding gun and protects the weld pool from contamination.

Specialty welding services:

- Press brake
- A machine pressing tool for bending sheet and plate material, most commonly sheet metal. It forms predetermined bends by clamping the workpiece between a matching punch and die.
- Shear
- Shearing, also known as die cutting, is a process which cuts stock without the formation of chips or the use of burning or melting. In strict technical terms, the process of "shearing" involves the use of straight cutting blades on sheet metal or plates; however, rods can also be sheared. Shearing-type operations include: blanking, piercing, roll slitting, and trimming.

