

MACHINERIES

1) CNC DRILLING MACHINE:



This machine can drill holes directly on finished Jobs and was highly effective for drilling of over 3 lakhs holes for bullet train bridge. This type of machine having special features like bi-direction & independent position, true dual spindle independent drilling, slant holes, fan-shaped hole. Also, this machine having special features two points quick side finding function, fast searching edge, fast marking to confirm hole location fast with an optional grinding & high rigid frame body. It provides continuous step – feeding in high performance drilling.



2) BEVELING MACHINE:



Edge beveller machines are specialized equipment used to prepare the edges of materials, primarily metal plates, for welding and other fabrication processes. In fabricated structures, particularly those involving steel and other alloys, edge bevelling plays a critical role in ensuring strong and reliable joints.

3) FLANGE STRAIGHTENING MACHINE:



Flange Straightening Machine is used to straighten the deformed H beam flanges. The hydraulic straightening machine has sufficient capacity to straighten, a larger beam. Straightening wheel and drive roller are made of alloy steel and operated through a user friendly device.

4) END MILLING MACHINE:



End milling is the most versatile form of milling that can be used to machine slots, shoulders, die cavities, contours, and profiles. An end milling process consists of a cylindrical cutter that has multiple cutting edges on both its periphery and its tip, permitting end cutting and peripheral cutting.

5) STUD WELDING MACHINE:



Stud welding is the process of welding a shear stud to another metal object. Stud welding is also known as drawn arc stud welding, or arc welding for short. 'Stud welding' and 'shear studs' are terms often used in connection with steel frame and composite floor construction.

6) GMAW WELDING MACHINE:



Metal Inert Gas (MIG) welding is an arc welding process that uses a continuous solid wire electrode heated and fed into the weld pool from a welding gun. The two base materials are melted together forming a join.

- *MIG welding produces high-quality welds at high speeds.

- *MIG welding is suitable for welding a variety of metals and alloys, including aluminium, copper, iron, and nickel.

- *MIG welding has low filler metal costs.

7) CNC CUTTING MACHINE :



CNC (Computer Numerical Control) cutting machines play a pivotal role in fabrication and manufacturing companies, offering precision, efficiency, and versatility in the production process. These advanced machines utilize computer programming to control the cutting tools, enabling them to execute intricate designs and shapes with high accuracy. CNC cutting machines can work with various materials, including metals, plastics, wood, and composites, allowing manufacturers to produce components for a wide array of industries such as automotive, aerospace, and construction.

The integration of CNC technology streamlines the fabrication process, reducing manual labor and minimizing errors associated with traditional cutting methods. With the capability to reproduce complex geometries consistently, CNC cutting machines enhance production speed and improve overall product quality.

8) OXYFUEL CNC CUTTING MACHINE :



Oxyfuel cutting machines are essential tools in fabrication and manufacturing companies, primarily used for cutting metal materials such as steel and aluminum. This process utilizes a combination of oxygen and fuel gas—commonly acetylene—to generate a high-temperature flame that effectively melts and severs the metal. The oxyfuel cutting technique is widely favored for its simplicity and effectiveness, especially in cutting thick sections and large plates, making it invaluable in industries like shipbuilding, automotive, and construction.

One of the key advantages of oxyfuel cutting is its ability to achieve precise cuts with minimal material waste. The operator can easily adjust the flame's size and temperature to accommodate different thicknesses and types of metal, resulting in versatile applications. Additionally, oxyfuel machines are relatively cost-effective, requiring less investment compared to advanced CNC equipment. While the process does involve certain safety precautions due to the high temperatures and flammable gases, modern oxyfuel machines are equipped with features that enhance safety and efficiency.

9) PLASMA CNC CUTTING MACHINE :



known for their ability to cut through a variety of materials, including metals such as steel, stainless steel, and aluminium, with exceptional precision and speed. Utilizing a high-velocity jet of ionized gas (plasma), these machines can slice through thick materials in a matter of seconds, making them highly efficient for both intricate designs and large-scale production. The technology leverages electrical energy to create a hot plasma arc that melts the material, while the pressurized gas blows away the molten metal, resulting in clean edges and minimal slag.

One of the major benefits of plasma cutting is its versatility; it can handle various thicknesses of materials and adapt to different cutting requirements with ease. Moreover, plasma cutting is less time-consuming compared to traditional cutting methods, significantly increasing productivity in manufacturing settings. This heightened efficiency is especially valuable for industries that require rapid turnaround times, such as automotive, aerospace, and metal fabrication.