

FABRICATION SHOP

PROCESS	BRIEF DESCRIPTION	PHOTOGRAPHS
1. CUTTING	<u>CNC Plasma & Oxy-Fuel Cutting Machines</u> It's a Complete Automatic cutting process. Preparing program through software according to nesting plan and feeding in the machine for automatic cutting. Oxygen and LPG are used normally whereas in plasma cutting oxygen and compressed air is used.	
2. DRILLING	<u>Multi Head Drilling Machines</u> Preparation of program from approved drawing for each plate and gussets. Job is placed in drilling machine and tightened with the drill machine bed fixture. Drilling of hole is done as per the prepared program and examined carefully after completion. It's a complete automatic process with high precision and suitable for mass production.	
3. FIT-UP	I-Girder Fitup Machine with a capacity to fitup upto -Web height 3000mm, Flange width 1200mm, Thickness up to 80mm Features - Robotic Clamping and web plate alignment system.	

4. WELDING

360 degree Rotation Cantilever Submerged Arc Welding Machine

Submerged Arc Welding (SAW) is a welding process where an electric arc is created between a continuously fed electrode and the workpiece, shielded by a granular flux. This flux layer covers the arc, protecting it from atmospheric contamination and enabling high deposition rates and deep penetration. Arc is submerged beneath the blanket of flux and is usually not visible during the welding.

It is a high productivity process and mostly semi-automatic and suitable for long run longitudinal welding and circumferential welds.

GAS Metal arc Welding

Gas Metal Arc Welding (GMAW), commonly known as MIG or MAG welding, is a fusion welding process that uses an electric arc between a consumable wire electrode and the workpiece to melt and join metals. A shielding gas protects the weld area from atmospheric contamination. An electrical arc between the wire and base metal generates heat that melts. Shielding gas protects the molten weld pool from harmful atmospheric gases.



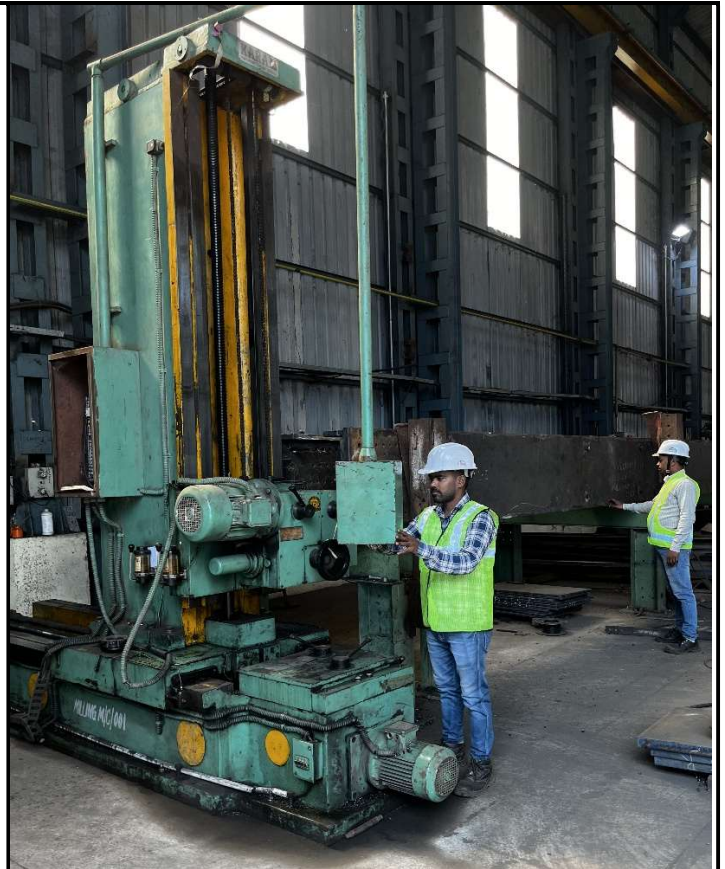
5. STRAIGHTENING

Straightening is used for removing bends, twists, or distortion from a metal component to achieve the required straightness and dimensional accuracy.



6. END FACE MILLING

End milling is used to remove material from the end or surface of a workpiece using an end mill cutter, producing the required length, profile, slot, or flat surface.



7. SHEAR STUD WELDING

Stud welding machines are specialized tools used to attach metal studs to workpieces using processes like drawn arc, capacitor discharge, or short cycle welding, offering strong, precise, and efficient fastening.

