Fabrication Terms Glossary

Plain-language definitions for buyers evaluating a fabrication partner

If you're specifying a component but don't work in fabrication day-to-day, some of the terminology on drawings, quotes, and process descriptions can be unclear. This glossary explains the terms you're most likely to come across when working with us.

Cutting & Forming

Shearing — Cutting a flat sheet into smaller pieces along a straight line using a shearing machine — the first step for most flat components before forming.

Blanking — Cutting a flat shape (a "blank") out of sheet metal using a press and die, as a preparatory step before bending or forming.

Forming / Bending — Shaping a flat sheet metal blank into a 3-dimensional part by bending it along one or more lines, typically using a press brake.

Power Press — A mechanical press used for blanking, punching, or forming operations with fixed tooling, suited to repeat production of a fixed shape.

CNC Press Brake — A computer-controlled machine that bends sheet metal to a precise angle by pressing it between a punch and a die. Tonnage (e.g. 40T, 160T) refers to the force the machine can apply.

Tonnage — The force capacity of a press or press brake, typically stated in tonnes (T). Higher tonnage is needed for thicker material or longer bend lengths.

Welding & Assembly

Spot Welding — A welding process that joins two overlapping sheets by applying heat and pressure at a specific point, commonly used for lighter assemblies.

CO2 / MAG Welding — A welding process using a shielding gas (carbon dioxide or a metal active gas mix) to protect the weld area, commonly used for structural and heavier fabrication joins.

Weld Integrity — The structural soundness of a completed weld — its ability to hold the intended load without cracking or failing

Surface Preparation & Finishing

Pre-Treatment — A chemical process applied to a metal component before coating, to clean the surface and improve coating adhesion and corrosion resistance.

Zinc Phosphating — A specific pre-treatment process that deposits a thin zinc phosphate layer on the metal surface, improving paint/coating adhesion and corrosion resistance. Typically done in a multi-tank dip line.

Powder Coating — A dry finishing process where powdered paint is electrostatically applied to a component and then cured under heat, producing a durable, even coating.

Conveyorised Line — A production line where components move continuously through each processing stage on a conveyor, as opposed to being manually moved batch by batch.

RAL Colour — A European colour-matching standard used to specify exact paint and coating colours by a reference code (e.g. RAL 9005 for jet black).

Film Thickness (Microns) — The thickness of an applied coating layer, measured in microns, which affects both appearance and protective performance.

Materials

Mild Steel (MS) — A low-carbon steel valued for good weldability and formability; the most common material for general fabrication. Stainless **Steel (SS)** — A corrosion-resistant steel alloy containing chromium, used where hygiene, appearance, or corrosion resistance are priorities. **Aluminium** — A lightweight, corrosion-resistant metal used where weight reduction matters, though it forms and welds differently from steel.

Quality & Specification

Tolerance — The permitted variation from a specified dimension — how much a finished part is allowed to differ from the drawing before it's out of spec.

Dimensional Verification — Checking a finished component's measurements against the drawing to confirm it meets the specified tolerances.

ISO 9001 — An internationally recognised quality management system standard, covering how a company plans, controls, and improves its processes.

IS 3834 — An Indian Standard covering quality requirements for fusion welding, used to certify that a company's welding processes meet a defined quality benchmark.

Traceability — The ability to trace a finished component back to its specific production run, material batch, and inspection records.

Don't see a term you're looking for? Send us your drawing or specification and we're happy to walk through it with you before you submit a formal RFQ.

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