HYPERTHERM®
A Hypertherm Associates Brand

Bevel precisely and consistently with plasma cutting



Improves speed, repeatability, and accuracy

Common beveling challenges

Beveling creates an angled edge on a material to prepare it for welding, improve aesthetics, or reduce sharp edges. Manual beveling methods include hand tools like files, chisels, angle grinders, and handheld machines. Automated methods employ CNC beveling systems and plasma, laser, and water jet cutters.

Challenges in beveling include precision and consistency, material waste, increased costs and time, safety, equipment maintenance, and material suitability. These impact a production floor's efficiency, quality, and safety.

> **Plasma's high cut quality delivers consistent geometries and dross-free cuts, resulting in weld-ready bevels with minimal grinding**

Common beveling methods

Manual beveling includes hand files, angle grinders, chisels, handheld beveling machines, and oxyfuel torches, which are often used in small-scale production where precision is critical

Mechanized beveling cuts bevels using a specialized bevel torch or cutting head mounted on a CNC cutting table, pipe and tube cutter, or beam processing machine

Robotic beveling is the most flexible method and enables the consolidation of multiple operations, such as handling, cutting, marking, grinding, and welding, and can complete the part in one cell

Track beveling cuts parts on mechanized CNC tables followed by a separate beveling operation for weld preparation using an oxyfuel torch on a carriage that follows along the edge of the plate



Plasma beveling offers high speed and efficiency

Plasma beveling is fast and efficient, making it ideal for cutting thicker materials. It provides clean, precise cuts with minimal dross, minimizing secondary finishing. Plasma beveling is versatile, handling various conductive metals and accommodating various bevel angles and complex shapes. Additionally, it can be integrated with CNC machines for automated and repeatable cuts, enhancing consistency and reducing human error.

> **Robotic plasma beveling is over 3 times more efficient than robotic oxyfuel beveling, with a comprehensive cost of up to 3 times lower**

Hypertherm plasma: trusted more than any other brand

Manufacturers worldwide trust Hypertherm® plasma more than any other brand. From handheld to automated, our proven plasma cutting solutions are rated as the industry's most reliable. Contact your Hypertherm sales partner to discuss how a Hypertherm plasma-cutting platform can modernize your operations.

Gain a competitive advantage with plasma beveling

Provides clean, precise cuts with minimal dross and carbon deposits, which reduces the need for secondary finishing processes

Cuts significantly faster than traditional methods, translating to higher productivity and reduced labor costs

Handles a wide range of materials, including stainless steel, aluminum, and other conductive metals, and can accommodate various bevel angles and complex shapes

Minimizes material waste, making plasma a cost-effective option for many applications

Integrates with CNC machines, allowing for automated and repeatable cuts, enhancing consistency, and reducing the likelihood of human error

Produces less hazardous fumes and noise than other methods, improving the working environment for operators

Learn more about beveling with plasma

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