Hypertherm®

Automated plasma cutting

Automated plasma cutting provides an optimal mix of cut quality, productivity and operating cost for mild steel, stainless steel and aluminum across a wide range of thicknesses at a competitive capital equipment price. The shapes produced by plasma are precise and can include sharp corners, intricate curves, beveled edges, bolt-ready holes and internal contour cuts.

Questions to ask:

1. Do you cut metal?
2. How do you cut metal today?
3. Do you have any rework?
4. Do you have issues with angularity?
5. Could you benefit from nesting?
6. What improvements would you like to see with your current cutting operations?

Cut quality

- Excellent angularity and surface finish
- Minimal heat-affected zone (HAZ)
- Virtually dross-free cuts
- Good to excellent fine-feature cutting
- Smooth cut edge
- Bolt quality holes 1:1 (diameter: thickness)

Productivity

- Very fast cutting speeds up to 2"
- Expedited pierce times
- Quick-disconnect torches maximize productivity

Operating cost

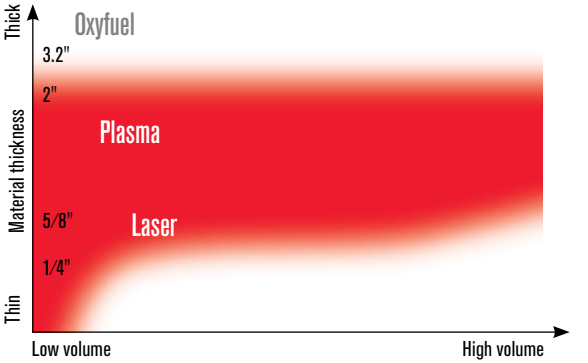
- Long consumable life and excellent cut quality increase productivity and lower the cost per part compared to other cutting technologies

Maintenance

- Mechanical systems require simple to moderate maintenance

Cutting technology comparison: plasma, oxyfuel and laser

When to choose plasma



Areas of technology overlap indicated by shading, including both thickness and volume. Additional consideration is recommended to best determine appropriate technology, as more than one technology may be appropriate in areas of overlap.

Laser – range is gauge to 1/4"

Laser provides excellent cut quality, productivity and operating costs on material less than 1/4", with common use now extending up to 3/8". Depending on type of laser (CO_2 or Fiber) and the power level available, cut capacity can be extended to 1–1/4". Cutting volume, types of materials, fine feature requirements and thicknesses are important considerations.

Plasma – range is gauge to 2"

Plasma provides an optimal mix of cut quality, productivity and operating cost for mild steel, stainless steel, and aluminum across a wide range of thicknesses at a competitive capital equipment price with high production volumes.

Oxyfuel – range is 2" and above

Oxyfuel is limited to mild steel and is not effective on stainless steel or aluminum; multi-torch applications may require additional consultation depending on application or maintenance.

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