



INNOVATION THROUGH PASSION



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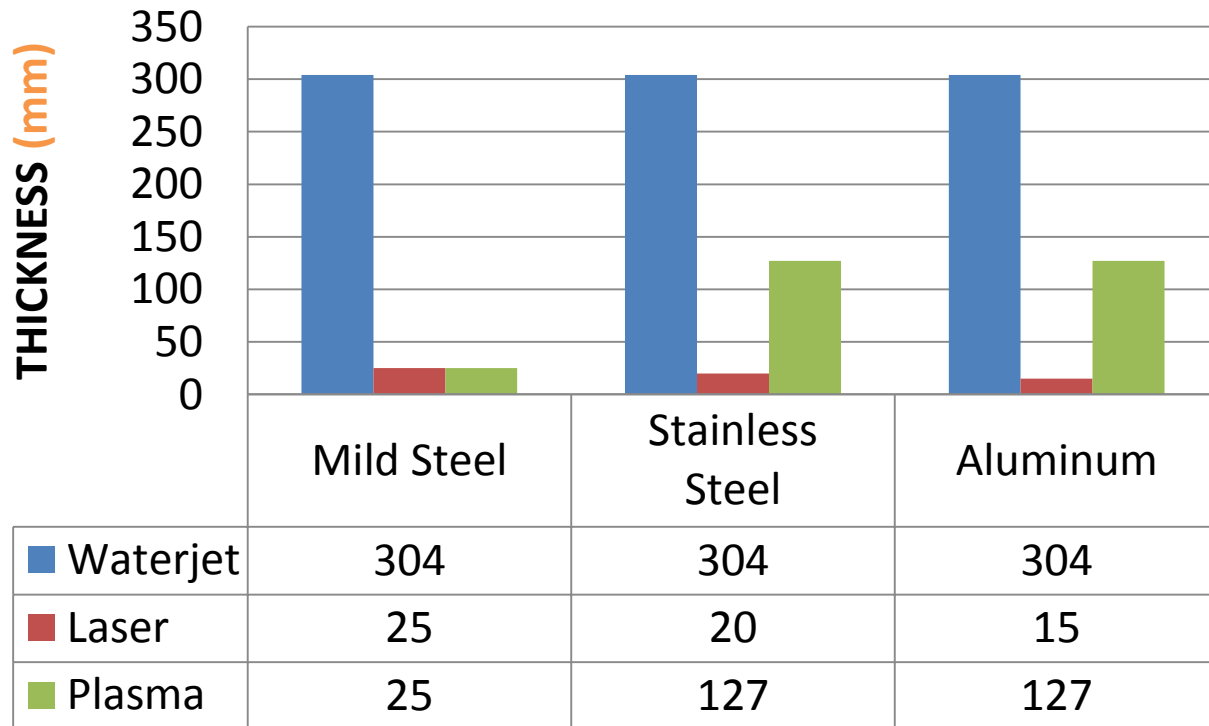
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CUTTING TOOLS – MAX THICKNESS

Max Thickness Cutting Ability (mm)



CUTTING TOOLS – HEAT AFFECTED ZONE

One of the biggest advantages is water jet's inherent cold cutting quality. This allows materials to be cut that would be burned, melted, or cracked by other cutting methods. Some thermal processes cause surface hardening, warping and emission of hazardous gasses. In contrast, materials cut with waterjet undergo no thermal stress, eliminating such undesirable results.

Moderate Kerf ($\sim 0.76\text{mm}$)



No Heat Affected Zone



WATERJET

Large Kerf ($\sim 1.5\text{mm}$)



Large Heat Affected Zone ($\sim 3.1\text{mm}$)



PLASMA

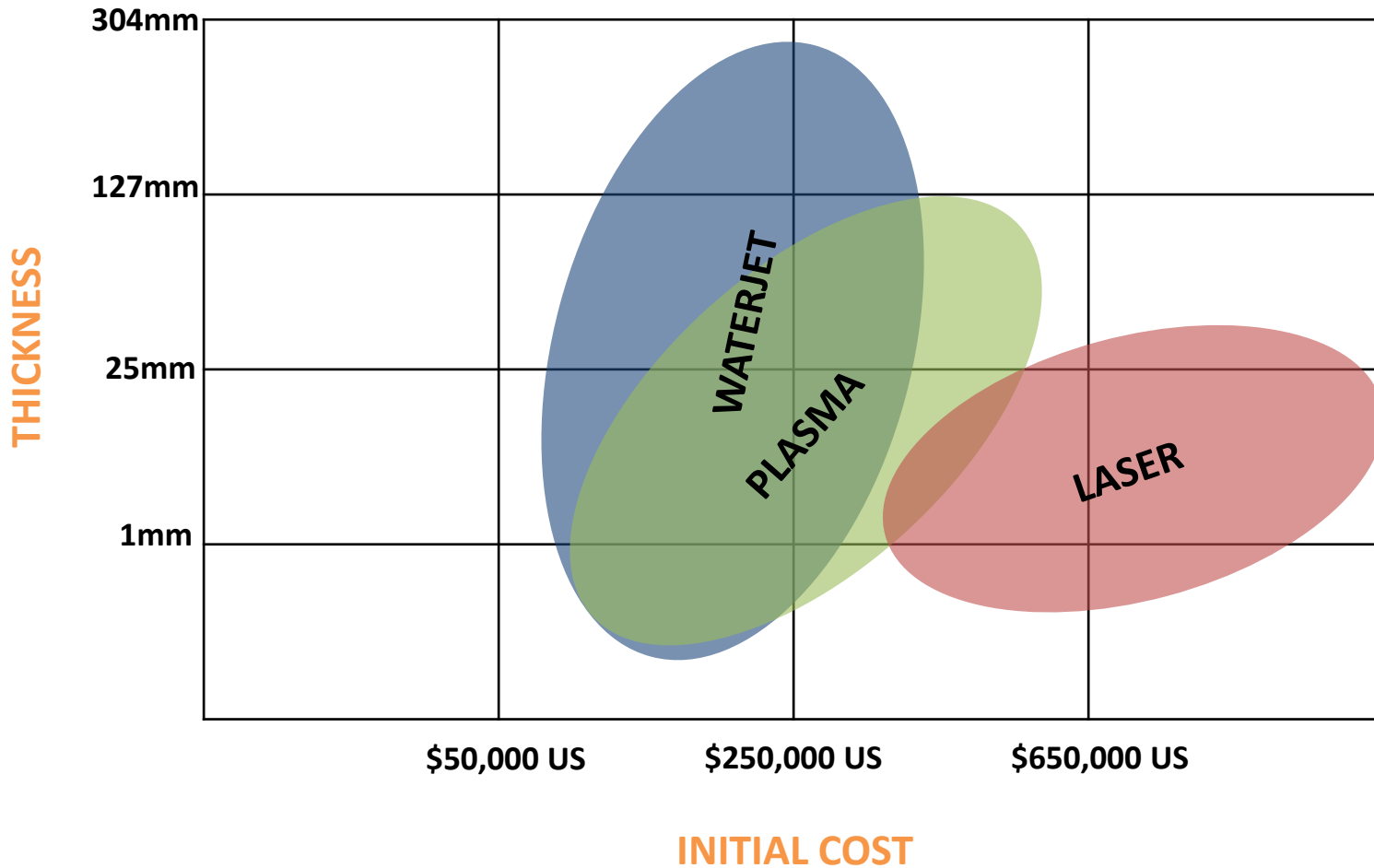
Small Kerf ($\sim 0.25\text{mm}$) Small Heat Affected Zone ($\sim 0.63\text{mm}$)



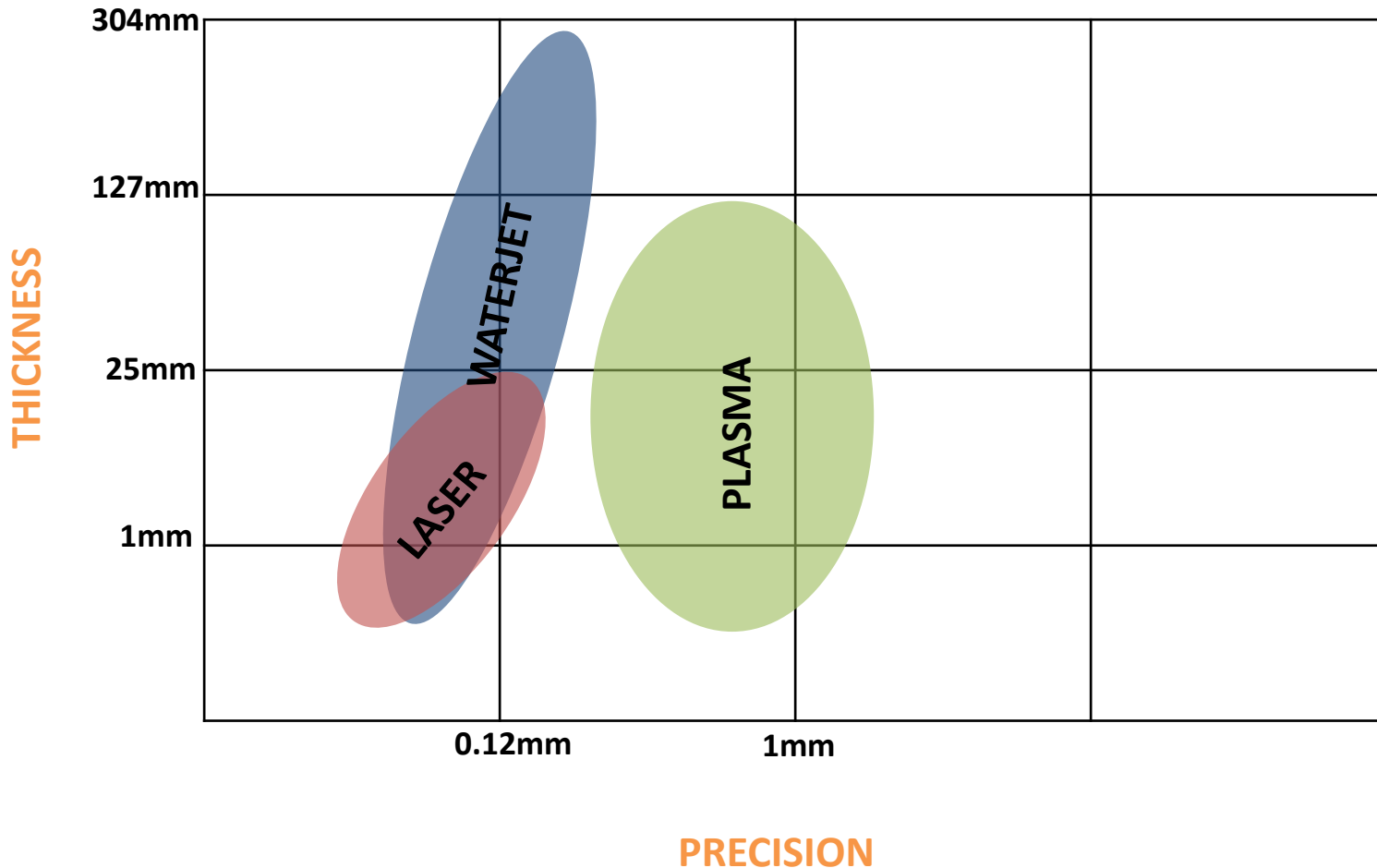
LASER



CUTTING TOOLS – INITIAL COST & THICKNESS



CUTTING TOOLS – THICKNESS & PRECISION



CUTTING TOOLS – WATERJET ADVANTAGE

Multiple cutting heads increase the net feed rate

Stack cutting of thin sheet materials increases net productivity

No heat affected zone

Secondary operations often not required

Cut up to 304mm

Precision: 0.025mm

Less Capital Cost

No Harmful Gases

Environmentally Friendly

Lower Running Costs

Versatile –Cuts Any Material

Glass

Fibre Glass

Rubber

Corkboard

Foam

Food

Plastic

Fabrics

Titanium

Copper

Brass

Monel

Composite

Kevlar

Graphite Laminates

Nickel

Stainless Steel

Mild Steel

Teflon

Aluminium

Exotic Alloys

Stone

Marble

Floor Tile



CUTTING TOOLS – SUMMARY

	WATERJET	PLASMA	LASER
Capital Cost	\$100,000 - \$400,000 US	\$100,000 - \$400,000+ US	\$400,000 - \$1 Million+ US
Materials	Any Material	Primarily steel, stainless steel and aluminium.	Primarily steel, stainless and aluminium. Can also cut a variety of other materials.
Thickness	Up to 304mm for any material	Up to 22mm for steel. Up to 127mm for stainless and aluminium.	Generally 25mm or less for all materials.
Cut Quality	Good to excellent surface finish. No heat affected zone. Good to excellent fine feature cutting with small kerf No dross Low Running Costs	Poor to fair surface finish. Large heat affected zone. Poor to fair on fine feature cutting with large kerf Dross can be present. Bevelling/taper can occur on corners and bevels. Medium Running Costs	Good to excellent surface finish. Small heat affected zone. Good to excellent fine feature cutting with very small kerf Small amount of dross can be present. High Running Costs

