



### Cutting technology comparison

	<b>Photo Etching*</b>	<b>Stamping</b>	<b>Electroforming*</b>	<b>Wire EDM</b>	<b>Laser cut</b>	<b>Water Jet</b>
<b>Test Samples &lt;100</b>	Low Cost	High cost	Low Cost	Low Cost	Low Cost	Medium cost
<b>Burrs</b>	Zero burrs	Partial Burring	Zero burrs	Micro Burring	Micro Burring	Micro Burring
<b>Metals</b>	All base metals & alloys	Metal alloys	Mainly Gold, Copper & Nickel	Metal alloys	Metal alloys	Almost all metal alloys
<b>Stress</b>	No Stress	Stress at the cutting edges	Low stress	Structural changes may occur	Thermal stress	Stress at the cutting edges
<b>Design Changes</b>	Fast and cost effective	Very costly and time consuming	Fast and cost effective	Fast and cost effective	Fast and cost effective	Fast and cost effective
<b>Lead time</b>	<24-48 hours	Several weeks	Several days	48 hours	48 hours	48 hours
<b>Hardness</b>	No Limits	Issues with soft & brittle metals	Limited	Limited hardness	No limits	Limited hardness
<b>Tolerances (% of material thickness)</b>	±10%	±10%	±5%	±10%	±5%	±15%

\*Shimifrez expertise