

SOFT-TOUCH™ RESONATOR TECHNOLOGY

LaserStar's **Soft-Touch™ Beam Enhancement Resonator Technology** minimizes the impact of thermal lensing and greatly reduces the effects on the beam axis, producing an improved beam shape that can be focused to very small spot sizes while enhancing the overall weld quality.

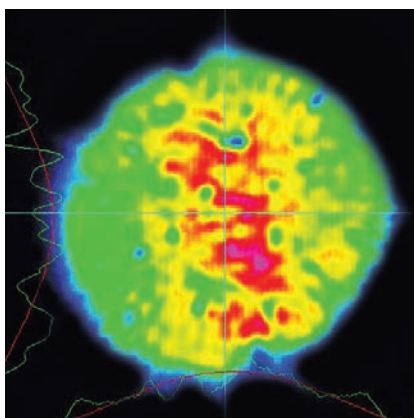


One can see from the Soft-Touch™ Technology image that a softer beam profile is generated, greatly reducing the effects of the peak energy on the beam axis which often can splash metal, blow holes or damage heat-sensitive materials.

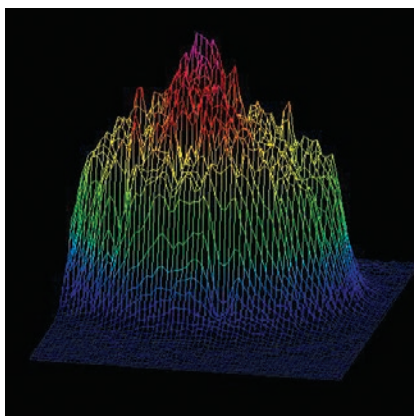
Thermal lensing is common in high-power laser systems. The heating of the gain medium (peak energy) is hotter on the beam axis compared to the outer regions. Consequently, thermal lensing can often cause inconsistent results when applied to small, micro-welding applications.

The following Beam View Analyzer illustrations demonstrate the benefits of Soft-Touch™ Technology.

Standard Resonator BeamView

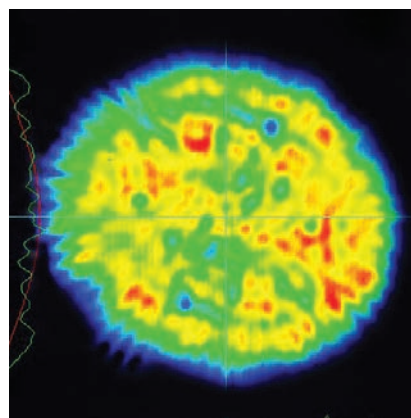


2-D Illustration

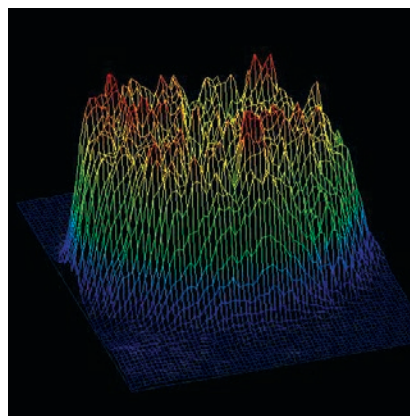


3-D Illustration

Soft-Touch™ Resonator BeamView



2-D Illustration



3-D Illustration