

Laser Welding

**Costly Laser
Absorbing
Additives**

NOT REQUIRED



Unfilled Tube-to-Port



Continuous Weld



Unfilled Tube-to-Tube



Clear-to-Clear Polymer



DUKANE

Laser Welding System designed to weld clear to clear thermoplastics without the need of any laser absorbing additives. This system incorporates a recently developed 2 micron laser with a greatly increased absorption by clear polymers and enables highly controlled melting through the thickness of optically clear parts.



LaserLinQ™ a proprietary software to control laser beam delivery programs.

LaserLinQ™

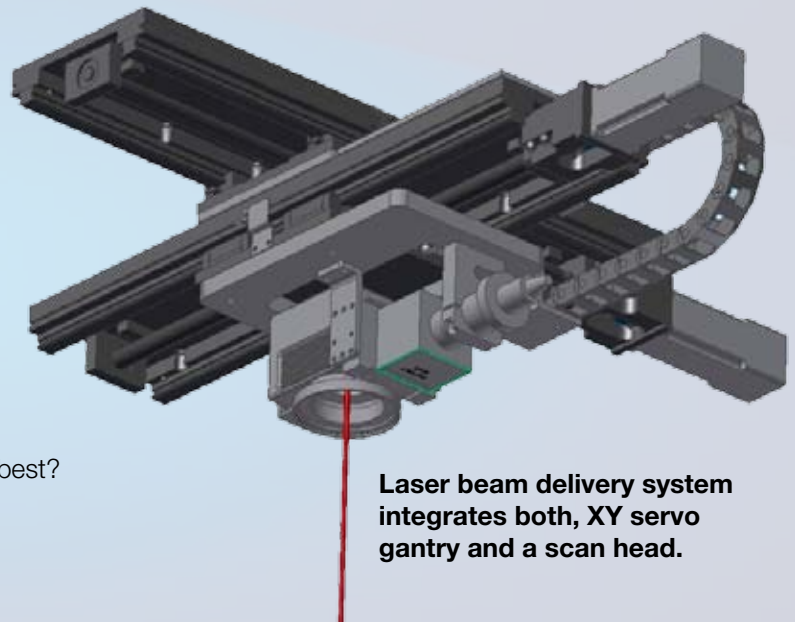
Parts and Materials FAQ:

- Q** - What type of plastics can be welded?
A - Most thermoplastic materials.
- Q** - Do both parts need to be clear?
A - No. The bottom or inner part can have color to it. If the color is black, the maximum carbon content should not exceed 0.5 - 1.0 %.
- Q** - What material thickness of the upper/outer part works best?
A - 0.25mm – 3.5mm depending on the material.



Benefits of Dukane's Laser Welding System:

- Laser beam delivery system integrates both, a scan head and XY-servo driven gantry, utilized to move and precisely position the laser head when larger parts are welded.
- A closed-circuit television (CCTV) camera is integrated within the machine. This enables a live weld preview on the HMI screen and gives the ability to directly monitor and record weld cycles.
- Proprietary software provides the ability to break complex weld patterns into separate geometric segments, modify each segment independently and assign different welding parameters to each segment.
- All laser enclosures are Class I CDRH certified.



Laser beam delivery system integrates both, XY servo gantry and a scan head.

Industry Leading Custom Tooling

- Highly specialized tooling cassettes with quick tool changing features.
- Tools, as a standard, incorporate binary tool ID recognition for automatic weld recipe recall.
- Capable of supporting multi-cavity function, multiple feature detection, vision systems, and independent clamping systems in an effort to compensate for part variations.

DUKANE
www.dukane.com/us

Dukane
 2900 Dukane Drive
 St. Charles, Illinois 60174 USA
 TEL +1(630) 797-4900
 FAX +1(630) 797-4949
 E-MAIL ussales@dukane.com

