

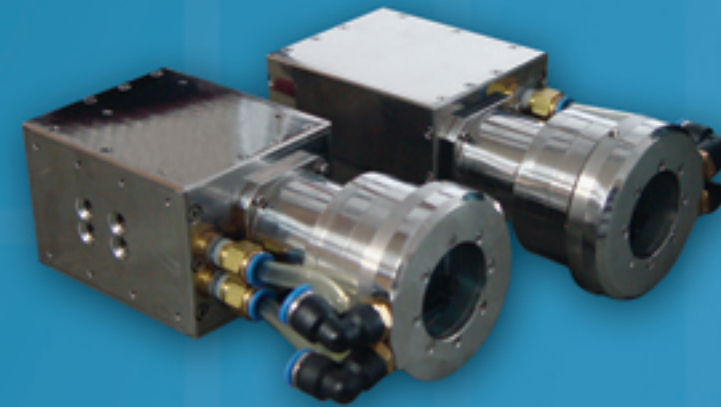
Direct Diode Laser System

100W~6KW Diode Laser

Applications

- Heat treatment
 - Rail, Car engine, Spool, Thompson knife, Pipe, the others...
- Welding
 - Mold, Pressure sensor, Lithium-ion battery, Car parts, Plastic welding, the others...
- Cladding
 - * Wire and Powder clads can be produced
 - Low Dilution
 - Relatively Smooth Surface Finish
 - * Precise Control of Thermal Input
 - * Small Heat Affected Zones
 - * Dense Microstructures and Enhanced Bonding
 - Increased Wear Resistance
 - Increased Corrosion Resistance
 - * Environment Friendly
 - * Thorough melting is indicated by dendritic microstructure of clads

High Power DDL System

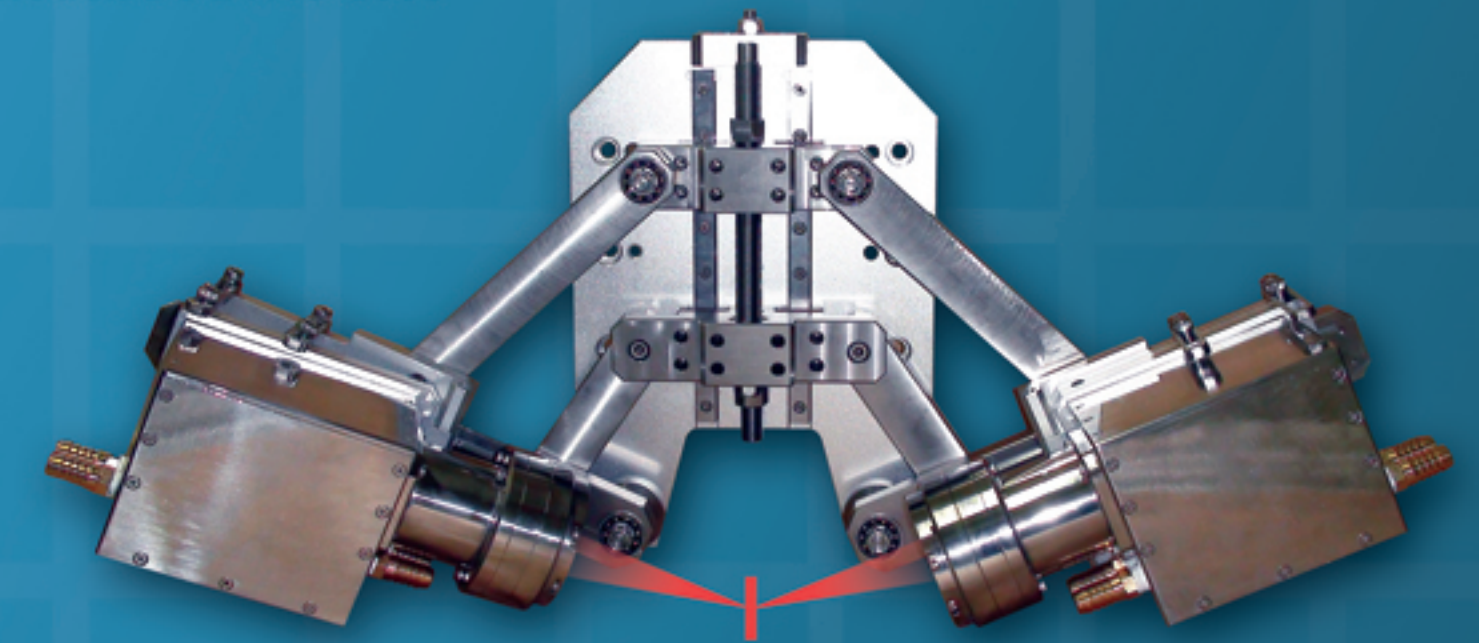


2 Channel Power Controller

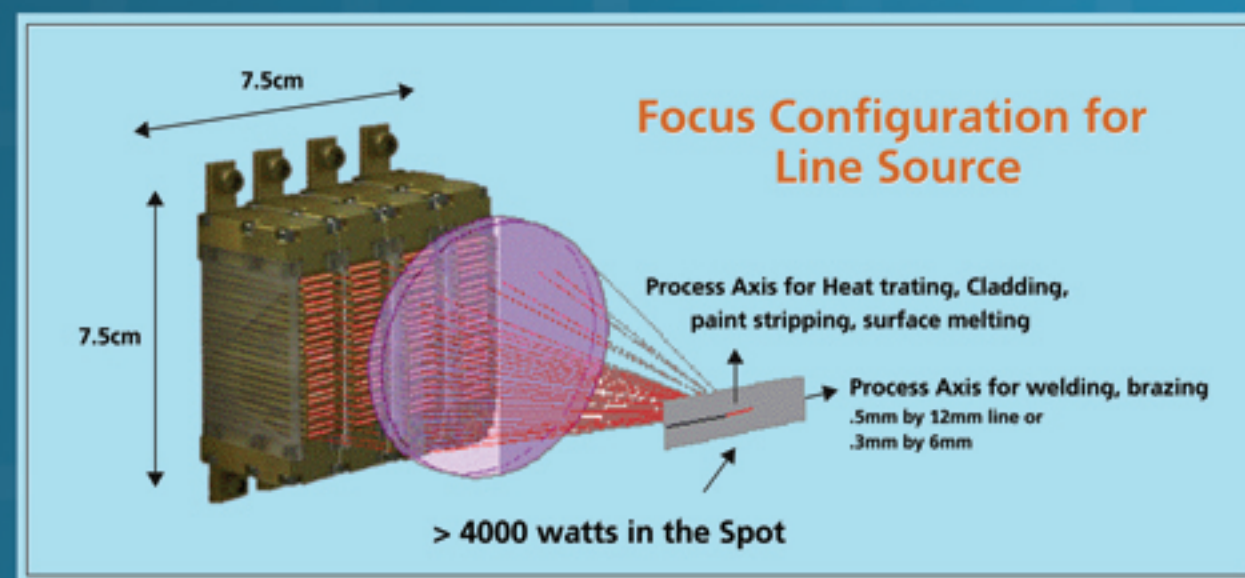


Heat Treatment System

Model: DDL HTS-1000



- * High case depths can be achieved in steel, cast iron and stainless steel parts
- * Backtemper is defined as the portion of two overlapping passes that does not have sufficient hardening (30 to 40 Rc) due to the tempering of the martensite
- * For all backtemper analysis the beam was either in focus or defocused 1mm.
- * Backtemper Analysis
 - 5 to 7 % of the pass consists of tempered martensite
 - Data obtained through microhardness
- * Backtemper analysis can be simplified by controlling the temperature of the part



Beam Pattern

