



*A video-laser sensor for welding control. Laser light, projected onto the plates being welded, defines a reference line and plane. A video camera views these reference points from an angle. Computer software calculates the three-dimensional profile of the welding bead from the video image. Using such a sensor the amount of material deposited in a joint during a multi-pass weld can be monitored.*



*Not a robot, but close: this commercial welder needs no human intervention during actual welds, provided its operator sets necessary parameters before welding begins. Capable of performing both gas-tungsten and plasma-arc welding, the system is like those used to weld aluminum plates for the U.S. Space Shuttle.*