

Variations of remote laser welding of hang-on-parts

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Remote laser welding is a now mature process in seatback, seat frame and recliner applications. However, in search of efficiency and because of part design changes, it has become increasingly popular for other automotive applications too.

Car doors are often referred to as hang-on-parts, for these standard laser butt welds and tactile guided filler wire fillet welds are have been used for some years. However, the full advantages of the remote laser welding process: omni-directionality, small robot movements and high laser on time are rarely fully exploited.

II-VI Highyag offer an omni-directional remote laser seam tracking system and present it applied to automotive applications of aluminum and steel door welding. Advantages and challenges are displayed and discussed. Secondly the combination of locally applied laser screw welds in combination to seam tracked remote laser fillet welds are shown.