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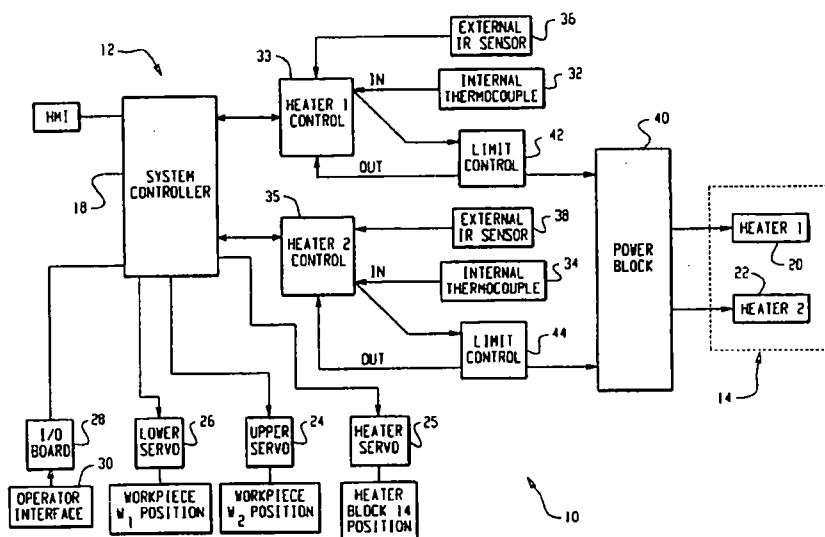
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(54) Title: IR WELDING OF FLUOROPOLYMERS



(57) Abstract: Apparatus (10) for welding plastic workpieces (W1, W2) together includes a heater block (14) having first and second surfaces (64, 66); a first heating element (20) for radiating heat from the first surface (64); and a second heating element (22) for radiating heat from the second surface (66); wherein the first and second heating elements (20, 22) being separately controlled for temperature. The temperature sensors (36, 38) are provided for detecting temperature of the workpieces (W1, W2) at the weld sites. The heating elements (20, 22) preferably are laid out in a non-planar manner such as a parabolic, convex or other curved or angled configuration so as to focus, direct or otherwise concentrate the radiated heat toward the weld site (112) on the workpiece (W). The invention is particularly suited for welding a part made of a melt processable material such as PFA to a part made of a non-melt processable material such as modified PTFE.

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