

Industry: Manufacturing

Equipment: Command[®]THC, HD3070[®]



Faster Torch Height Control Increases Output 20%

The company and products

The Iron Shop in Broomall, Pennsylvania, near Philadelphia, has been manufacturing custom-built spiral, curved and floating stairs since 1931. The introduction of spiral stair kits opened new markets around the world. The company's spirit of innovation made The Iron Shop one of the first users of Hypertherm's HyDefinition process in 1991.

The problem

A tight labor market and high demand for custom-built spiral, curved and floating stairs was creating a serious backlog of orders at The Iron Shop. The problem was obvious: the company needed to quickly upgrade its manufacturing process if it was to remain a key player in an expanding market.

The solution

In 1998, President Allen Cohen installed two new X-Y tables from Advanced Kiffer Systems (AKS) mounted with Hypertherm HyDefinition HD3070 plasma systems. Burny controllers operated the tables. Hypertherm Command THC controlled torch height.

"The whole system is so much faster and the quality is so much better that I now have a real competitive advantage," Cohen says. "It's almost against my interests to tell anyone about it."

Benefits

Hypertherm's Command Torch Height Control has dramatically increased output by replacing a unit that took a full 5 seconds to screw down to the work piece, screw back up to pierce height, fire, pierce and cut. "With Command THC, there's no waiting," President Cohen says. "It's boom! Done!"

"The faster cycle time is like having an extra day of output every week," he adds. "We're doing \$500,000 worth of fine ironwork for a new restaurant in Manhattan and because of construction contracts, we've got to stay on schedule. Because of these recent upgrades, we will!"

- The Iron Shop demands flawless finishes on its spiral stair kits and custom ornamental work.
- Tight schedules call for fast turnaround.
- The HyDefinition plasma process cuts at near laser quality.
- Command Torch Height Control reduces cycle times by 20%.
- The overall gain in productivity is like having an extra day's output each week.

- Command THC saves time by starting the plasma preflow during initial height sensing. Operators can quickly set partial retract heights to keep the torch close to the plate between cuts, further enhancing productivity.
- Advance preflow start and partial retract combine to reduce cycle times 20%.
- Command THC also lengthens consumable life by preventing collisions with the work piece and minimizing spatter damage when piercing.



Accurate torch height is one way to ensure dross-free cutting. The Command lifter is so responsive that you can cut tread plate with the tread side up.

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