

Industry: Shipbuilding
Equipment: HT2000® on a CNC Table



Shipbuilder Raises Cutting Speed 125%, Cuts Production Time 66%

- **New England shipbuilder survives industry shakeout by increasing productivity.**
- **HT2000 increases cutting speeds by 225% on 1/4" (6 mm) mild steel and 3/4" (19 mm) plate.**
- **Hypertherm system eliminates entire days from key stages of production.**
- **Initial Height Sensing and automatic Torch Height Control free machine operators to remove cut steel and stage new plate for cutting.**
- **The elimination of double arcing prolongs the life of nozzles and electrodes, reducing operating costs.**

The company and products

Washburn & Doughty Associates, Inc. of East Boothbay, Maine is one of New England's finest commercial boat building facilities specializing in the construction of steel and aluminum vessels from 40' to 200'. Founded by Bruce Doughty and Bruce Washburn, the yard began building fishing boats in 1978. Since then, the yard has continued to prosper by diversifying its capabilities, developing innovative designs and building techniques, and reaching out to new markets. Washburn & Doughty now has a résumé that boasts the deliveries of a diverse mix of commercial passenger vessels including tugs, fishing boats, barges, ferries and research vessels to owners from Lunenburg, Nova Scotia to Bridgetown, Barbados.

The problem

Washburn & Doughty President Bruce Doughty was able to count more than 20 shipyards that closed their doors since he opened his in 1978. Obviously the US shipbuilding industry was taking on water. For their part, Washburn & Doughty ceased cutting steel by hand with oxyfuel torches and upgraded to a CNC table. A nitrogen plasma arc system cut their metal plate up to 3/8" (9 mm) thick and an oxyfuel torch cut thicker plate. Although the CNC system improved productivity, the edges of the cut metal were hard to weld and required expensive, labor-intensive grinding.

The solution

Yankee ingenuity kept the shipbuilder afloat. Washburn & Doughty made a quantum leap in productivity by moving up to the HT2000 oxygen plasma cutting system from Hypertherm. The HT2000 is a dual-gas plasma cutting system that cuts faster, eliminates dross and leaves a more weldable edge than any other technology. Unlike other oxygen systems, its higher performance

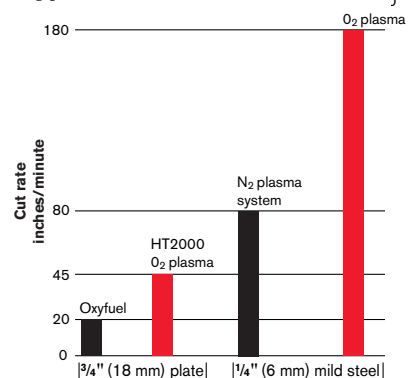
comes at no sacrifice of consumable parts life. Now Washburn & Doughty is integrating turnkey design and construction with more efficient manufacturing methods.

Benefits

Bruce Doughty credits Hypertherm for shop efficiencies that have improved his company's competitive position. "The HT2000 paid for itself in 6 months by doubling our productivity. It's been a great investment."

- Nitriding on the cut edge has dropped so much that pieces can be welded right off the cutting table, without grinding.
- Initial height sensing eliminates manual setting of torch height at the start of the cut.
- Automatic Torch Height Control frees the operator to perform other tasks.
- Nozzles and electrodes last longer, thanks to automated controls and the elimination of double arcing.

Hypertherm cuts faster



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