**History**

The roots of Hypertherm Associates dates to 1968, when founder Dick Couch and his professor from the Thayer School of Engineering at Dartmouth made the greatest breakthrough since the initial discovery of plasma cutting fourteen years earlier. They discovered that by radially injecting water into a plasma cutting nozzle, they could create a narrower arc, capable of cutting metal with a speed and accuracy never seen. In addition, two issues that had plagued the process from the start—the accumulation of dross and a phenomenon called double arcing—were virtually eliminated.

This new radial water injection technique introduced another first to the industry. Instead of relying on several different types of gases for cutting, the new technique only required nitrogen, making plasma cutting more economical and easier to use since customers no longer had to purchase and stock several different types of gas. Customers also saw a marked improvement in nozzle life because steam from the water helped to cool and protect the nozzle, significantly slowing down its wear rate. Mr. Couch quickly patented his new radially injected water technique and unveiled his very first plasma cutter, the PAC400. For the first time, plasma was a real option for people needing to quickly and cost effectively cut through metal.

The ensuing years brought steady growth to Hypertherm Associates, with Mr. Couch actively recruiting engineering talent, many with PhDs in plasma chemistry, from highly respected schools. Together, these engineers brought many more industry firsts to market. They discovered how to reduce the noise and smoke caused by plasma cutting, developed an underwater cutting process, and introduced oxygen cutting. These inventions were followed by the introduction of high-definition plasma in the mid-1990s, and a slew of incremental improvements over the decades that increased the thickness capabilities of plasma while improving cut quality. At the same time, each subsequent generation could cut faster and more efficiently, leading to improved productivity and increased profitability.

The advent of computers, computer numerical controls, and software further improved the performance, productivity, and profitability of plasma. Many settings once requiring input from an experienced operator were now automated freeing up the operator to oversee the loading and unloading of plate and parts. Processes like True Hole and True Bevel were introduced, simplifying the process of making bolt ready holes and bevel cuts in a single pass.

While engineers were advancing the capabilities of plasma, the Hypertherm Associates leadership team was busy growing the company—both organically in international markets and through strategic partnerships. The company opened global offices in Germany, Singapore, Brazil, and China and added several brands, starting with Centricut consumables in 1999.

Today, the people, brands, and technologies of Hypertherm Associates are found everywhere advanced manufacturing is happening around the globe to build ships, airplanes, and railcars; construct steel buildings and bridges; fabricate heavy equipment and wind turbines; and a whole lot more.