

Applications for Plasma Cutting Technology

Industry: Steel service center
Equipment: HyPerformance® HD3070™



Retrofit torch upgrade dramatically lowers operating costs

- Increased consumable life by at least 558%!
- "If we can achieve these speeds and consumable lifetime, the operating costs go down dramatically."



- For those not ready to upgrade their entire plasma system, retrofitting to a HyPerformance torch is the next best thing.

The company and products

Karl Hoechst GmbH is a steel service center located in Burbach, a small town in Germany. Four brothers run the company, which began in 1963 in an old bakery shop. Today, Hoechst delivers over 500 tons of precision cut parts every month. All of this is achieved with six cutting tables; three with plasma and three with oxyfuel.

The problem

Hoechst had been using a Hypertherm HD3070, and they were quite satisfied with the quality of the cuts. Initially, they saw no need to change. Running two shifts a day, cutting primarily 12mm (1/2") mild steel, they had become a well-known steel service center. Their primary focus has always been on service, with particular emphasis on "keeping your promises."

As Hoechst got busier though, they started to get increasingly concerned about the operating costs they were experiencing with their plasma systems. As they took on more jobs, they were aware of their rising costs, and hoped they could do something about it. They were also anxious to increase their cut speeds, especially since their emphasis was on keeping their promises. They wanted to continue to be able to deliver, as their company motto stated.

The solution

After much discussion with a local table manufacturer, Hoechst decided to stay with their HD3070, but upgrade the torch to a HyPerformance HPR130 torch. They were told that not only would their cutting speeds increase, but their operating costs would dramatically decrease. Not sure what to expect, Hoechst decided to go ahead with the retrofit, which took only 2 1/2 hours, and the results are unbelievable! Not only is Hoechst

pleased with the cut quality, but the speed and operating cost differences are exactly what he had hoped for.

Benefits

The HPR130 retrofit has significantly improved the cut speeds over what they were getting before with the HD3070, by as much as 15–30% faster! With a higher amperage process, Hoechst is also able to cut thicker plate; 15–18 mm (.591–.7092") whereas before they were only able to cut 12 mm (1/2"). This has allowed them to move some of the work from oxyfuel over to plasma to obtain even further gains on speed.

The most dramatic improvement though has been in how they have significantly lowered their operating costs due to the exceptional consumable life they now receive. Without the retrofit, on 8–15 mm (.3152–.591") parts, they were seeing approximately 300 starts. Now with these same parts, they are seeing a minimum of 1674 starts. This represents a 558% increase in consumable life! Hoechst just recently finished a job with 8mm (.591") mild steel and had 2,100 starts!

This dramatic increase in consumable life has had a direct impact on lowering their operating costs. They are not purchasing nearly as many consumables, and certainly their downtime due to consumable changeouts has decreased significantly. Needless-to-say, Hoechst is "extremely pleased with the results." For those not ready to upgrade their entire plasma system, retrofitting to a HyPerformance torch is the next best thing.

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