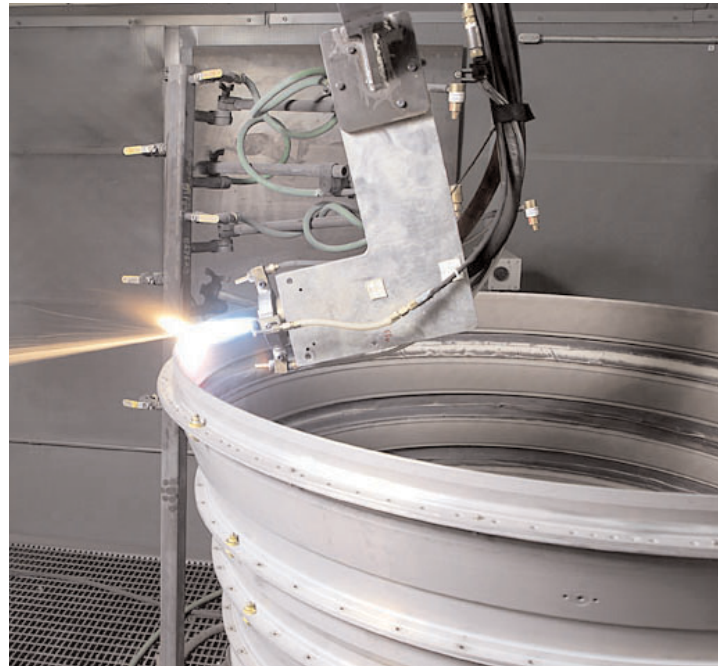


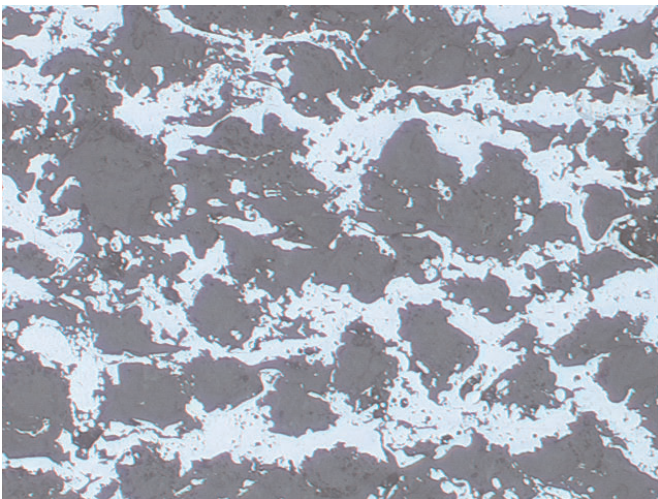
Making the Case for 100HE™ Plasma

PROGRESSIVE is working with turbine engine MRO facilities in an effort to improve the productivity and reduce the costs of applying abrasion-resistant coatings on turbine engine compressor components.

We have performed coating tests on a GE CF6-80C2 2-4 Booster Case and a Rolls-Royce RB211-524 Intermediate Pressure Compressor Case. The 100HE plasma system sprayed Aluminum Silicon Polyester powder (-125 +11 μm) at a spray rate of 100 grams/minute and deposition efficiencies of 80-90+ %. The results show a reduction in the spray time of 63% and a reduction in the amount of powder sprayed by 24% as compared to conventional plasma, resulting in significant total cost savings.



100HE plasma gun spraying compressor case



Example of AlSi-Poly coating applied with 100HE plasma process - 400x magnification

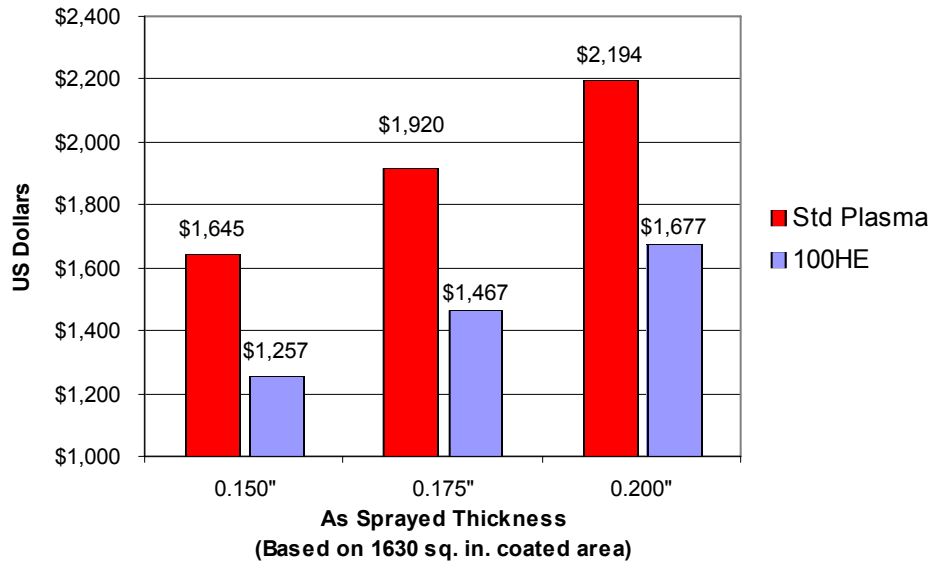
The patented 100HE plasma gun was selected to spray both the Nickel Aluminum bond coat as well as the Aluminum Silicon Polyester top coat using the same gun hardware for both materials. The 100HE produced abrasion-resistant coatings with superficial hardness within the range of 64 - 73 Rockwell 15Y scale.

The measured savings in time and powder consumption are significant, as shown in the charts on the reverse side. Due to the efficiency of the 100HE, a thermal spray shop could increase the volume of work produced by as much as threefold over a conventional plasma system without the addition of another spray booth or personnel.

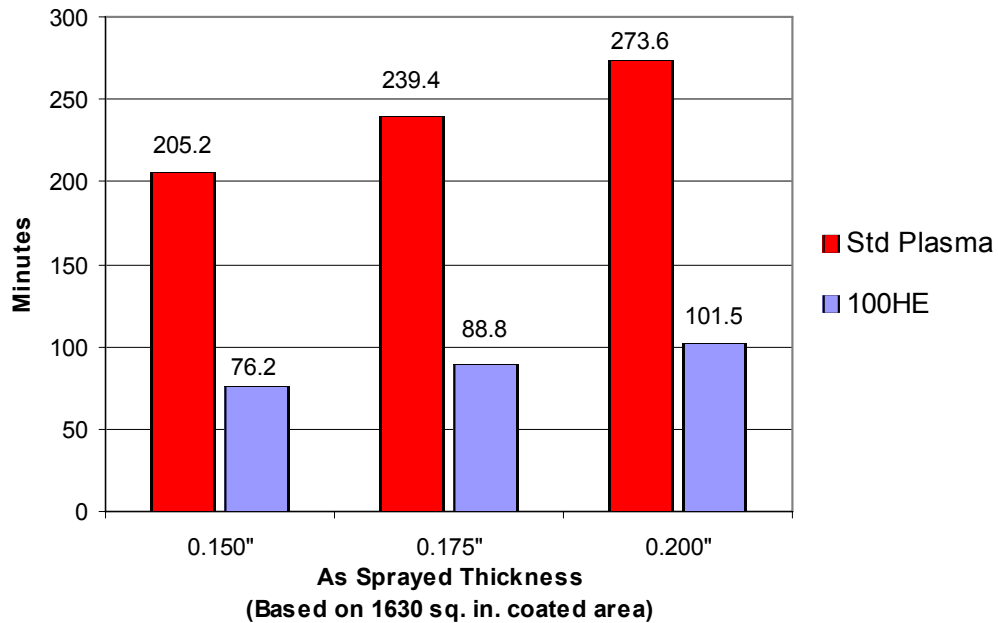
100HE Saves Time and Money*

Compressor Abradable Powder Costs

(Based on \$75 / pound)



Compressor Abradable Coating Time



* Detailed cost information for testing available

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