

Delta Air Lines

Delta Air Lines, Inc.
Post Office Box 20706
Atlanta, Georgia 30320-6001

May 5, 1998

Axiam, Incorporated
58 Blackburn Center
Gloucester, Massachusetts 01930

Dear Mr. Phillip E. Holt - President and Chief Executive Officer:

Delta Air Lines, Inc. is employing the Axiam Smart Stack™ in our JT8D engine builds. During the time we used this technology we have experienced a very positive influence in performance and mechanical operation of our engines. These improvements were verified with engine test cell data acquired from a sampling of engines run during 1996 prior to Smart Stack™ and then compared with Smart Stack™ engine builds during 1997. From this comparison we concluded the following:

- Run out problems are now non-existent. This is true for the rotor stacks as well as the module stacks. This has decreased our turn time which improves engine production.
- Straight and true builds of the rotors equate to lowered vibration levels, improved EGT pads and a decrease in fuel flow. This was observed in the Test Cell and should continue as the engines operate in service.
- Although not all of the improvements are attributed to the Smart Stack™ System, the System contributed significantly.

We recommend using Smart Stack™ along with quality engine parts to achieve the one plus percent improvement in fuel flow, improved EGT pads, and reduced vibration levels we experienced. Smart Stack™ ensures a straight build each and every time.



Ron Cherry - General Manager
Power Plant Production

cc: Vice President Power Plant Maintenance
Manager PW2000/4000/CF6/CFM/Test
Foreman 280R