

COMBUSTION / BURNER BUSINESS

CASE STUDY #102020-2



TOTAL TURNKEY VISION-ULN RETROFIT SOLUTION

CUSTOMER: *Major U.S. Bio-Refining Company*

CHALLENGE: Customer was utilizing multiple grain dryers in their production environment with each being rated at 45 MMbtu/hr, firing natural gas. The units were encountering several different performance issues that were significantly impacting reliability and emission performance.

Specific performance issues customer wanted addressed were:

- *Reduce NOx emissions from dryers to meet regulations with comfortable margin*
 - *Redesign dust laden recycle air system to improve and reduce maintenance due to wear and tear*
 - *Have ongoing support, as the existing burner manufacturer failed to adequately provide ongoing service and spare parts support*
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SOLUTION: *Provide total turnkey combustion solution of a new VISION ULN burner system which included:*

- *Partial pre-mix VISION Low NOx burner*
 - *New windbox with FD fan/motor*
 - *New recycle air system for improved combustion performance*
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RESULTS:

- 1- *Satisfied Customer – New VISION burner was installed and commissioned under budget and ahead of schedule.*
- 2- *Superior Performance – Combustion system met and exceeded stringent NOx performance requirements across required load range.*
- 3- *The redesigned recycle air chamber provided excellent temperature distribution into the furnace, eliminating hot spots that were causing wear and tear.*
