

Application**brief**

Eclipse Product: Minnox Burner
Submitted by: Eclipse Combustion UK
Application: Chicken Dung Dryer
Description:



A natural gas, direct fired low NOx burner system was required to dry chicken dung on a recirculating system for a Belgian site.

Chicken dung contains a high concentration of ammonia, which when introduced to high temperatures produces NOx.

The customer also wanted to minimise the excess air level through the burner in an effort to increase dryer efficiency (40% excess air through the Minnox instead of the specified 70% excess air), thus compounding increased NOx issues.

The challenge was to produce a system which would generate no more than an additional 25 ppm NOx per dryer recycle pass. (Ammonia levels in the recycle were 700ppm.)

A test was undertaken at Droitwich, which involved injecting ammonia into a pre heated air stream and passing over the test minnox burner supplied by Eclipse Holland. This mirrored the temperature conditions on site. NOx was measured at various lengths downstream of the burner at various firing rates.

The ability for Droitwich to undertake this satisfactory test proved to the OEM that a system could be designed to meet the criteria.

An order was placed with Droitwich, which included an order for Eclipse Holland for the Minnox burner.



Eclipse Minnox Low NOx Burner

