

Eclipse Product: Flue Fire Burners
Submitted by: Leen Riedijk
Application: Supplemental Firing after gas engines
Site Location: Aceralia Corporacion Siderurgica S.A.–Aviles, Spain

System Description: The burner is designed to provide supplementary heat after 9 to 12 gas engines to one common steam generator with the possibility for future extension to 16 engines. Due to the low oxygen content in the exhaust gas the burner is provided with a 100% primary combustion air supply. With the engines not in operation the burner can be fired in auxiliary air mode. The burner consists of 4 burner rows with 25 burner modules each and is suitable to fire natural gas, coke gas or a mixture of 80% steel gas and 20% natural gas. On order to obtain an optimal fuel gas distribution over the burner surface, each row is provided with gas inlets at both sides.

Technical Data:

Gas engines	
Make	GE – Jenbacher
Type	J 600 GS
Engine exhaust gas	
Flow	57.0 – 76.0 lb/s
Oxygen level	8.68 vol% wet
Inlet temperature	985 °F
Outlet temperature	1500 °C
Burner duty	37.5 MMBTU/h
Auxiliary air	
Flow	52.8 lb/s
Inlet temperature	59 °F
Outlet temperature	1275 °F
Burner duty	61.4 MMBTU/h
Fuels	
Natural gas	LHV = 1010 BTU/scfh
Coke gas	LHV = 450 BTU/scfh
Steel gas	LHV = 235 BTU/scfh



Duct Burner prior to installation showing 4 rows of burner with supplemental air ducting.



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