Datasheet 164
10/2005

Eclipse RatioStar Burners

Model RAS

Version 1

Parameter		Specification	
Maximum Input, kW		137 / Module	
Minimum Input, kW		13,7 kW / Module	
Typical Excess Air at Maximum		30%	
Turn Down on Air		1 : 5	
Fuel	Natural Gas	Hs=37-45 MJ/Nm^3 / d=0,6	
	Propane	Hs=101 MJ/Nm^3 / d=1,5	
Gas Pressure at Nozzle, mbar	Natural Gas	90 mbar	
	Propane	39 mbar	
Air Pressure Drop Over Module, mbar		2 to 2,5	
Air Pressure at the Burner Inlet, mbar		±10 to 15	
Maximum Temperature Upstream Burner		700°C	
Maximum Temperature Downstream Burner		1200°C	
Velocity Across the Burner, m/s		10 - 15 m/s (advised) 5 - 25 m/s (min/max)	
Module Dimensions, mm		150 x 150	
Flame Length from Stabilisation Plate, mm		1500	
Ignition System		Pilot	
Flame Supervision		UV scanner only	
Control Method		Mechanically or electronically linked valves	
Material Specification	Gas Manifold	AISI 316L	Wst. 1.4404
	Stabilization Plate	Avesta 253 MA	Wst. 1.4893
	Flame Shield	Avesta 253 MA	Wst. 1.4893
	Gas Nozzles	AISI 321	Wst. 1.4541

- All inputs based upon gross calorific values (HHV) and standard conditions; 1 atmosphere, 21°C.
- Eclipse reserves the right to change the construction and/or configuration of our products at any time without being obliged to adjust earlier supplies accordingly.

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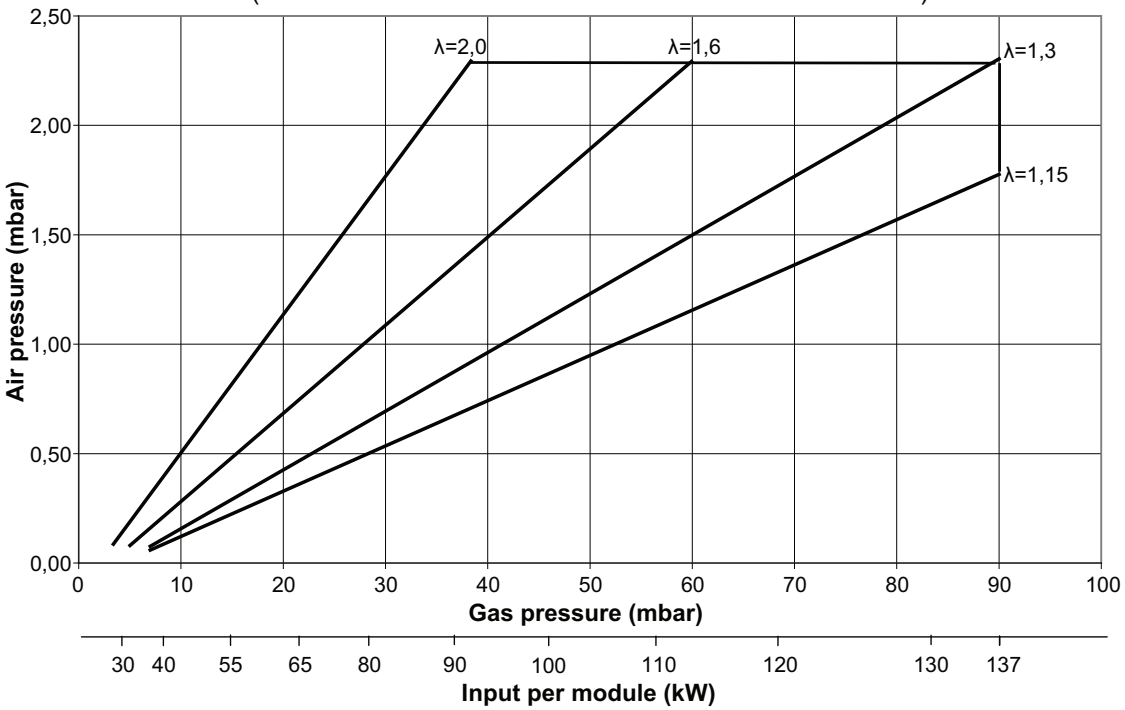
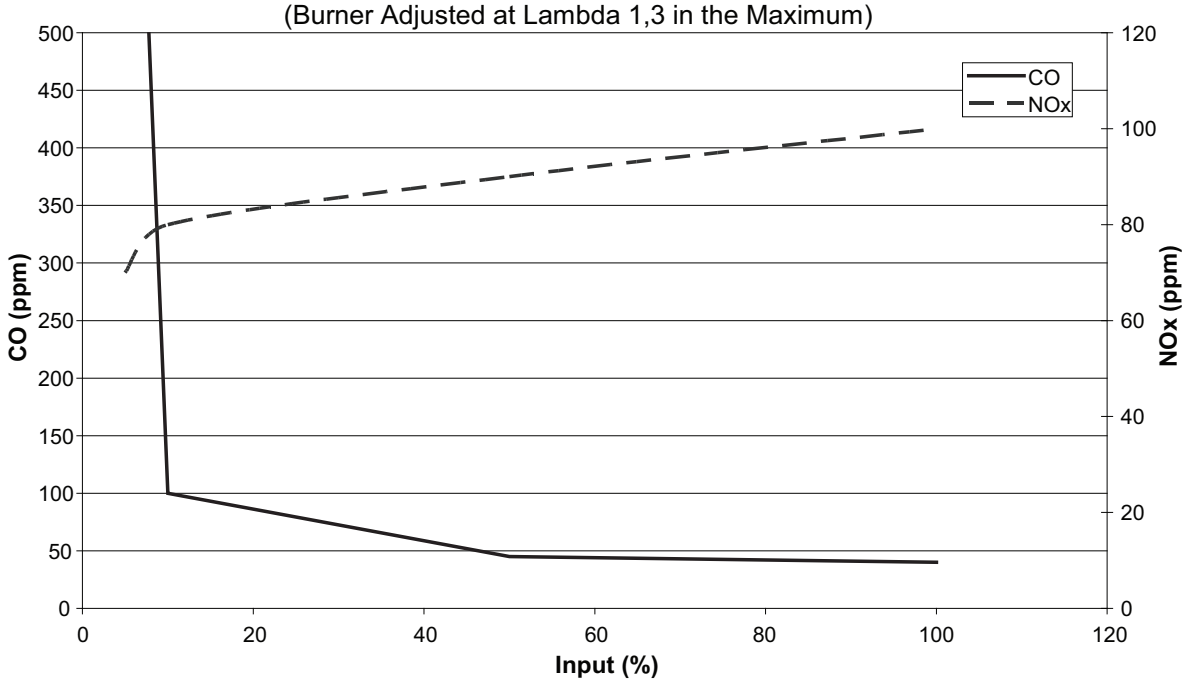
Performance Graphs

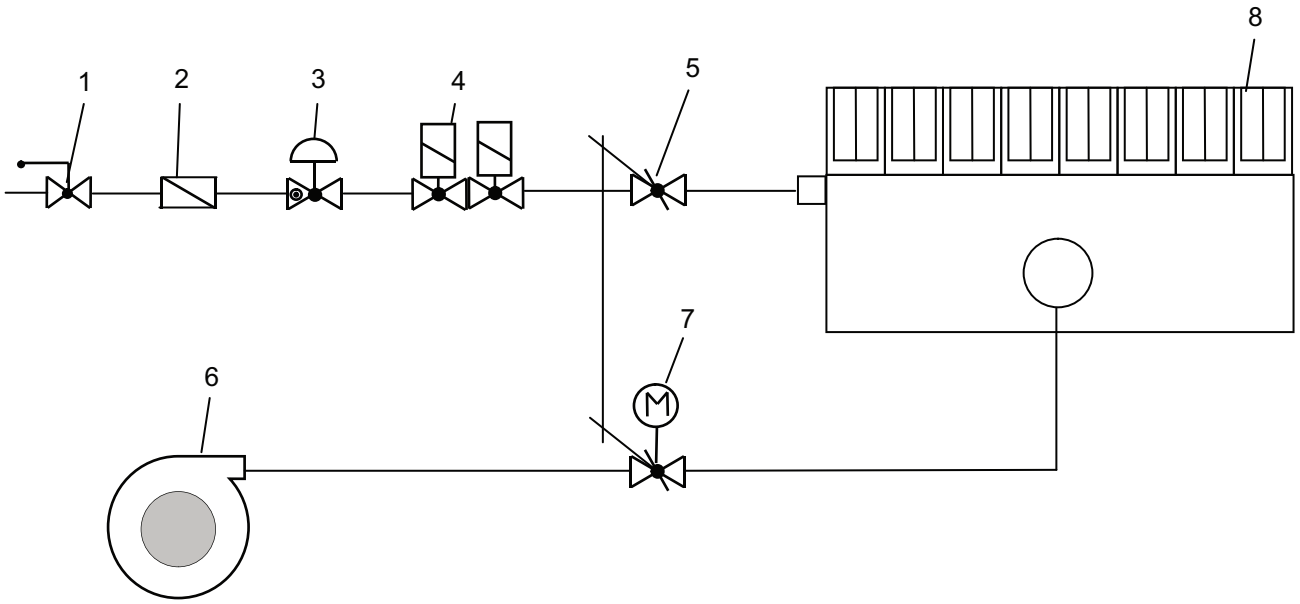
Window of Operations of RatioStar Burner
for Natural Gas (Hs = 40 MJ/Nm³)
(ΔP Air Over Stabilisation Plate and ΔP Gas Over Nozzle)



Estimated CO and NOx Emissions (at 3% O²)
with a RatioStar Burner on Natural Gas
(Burner Adjusted at Lambda 1,3 in the Maximum)



Example P & ID



Ref. No.	Description
1	Gas cock
2	Gas filter
3	Gas pressure controller
4	Double solenoid valve
5	Gas control valve
6	Blower
7	Air control valve with actuator
8	Burner

NOTE: This P & ID is for working principle only. Check your local regulations for mroe safety requirements.

NOTE: The linkage between the gas and air valve should be either mechanical or electronical.

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