

# UltraNOx Types S and T

# 1000-5600 kg/hr

**Cochran is a leading provider of fully engineered heat and energy solutions across the globe. Operating worldwide, the Cochran brand is a globally recognised benchmark for British engineering and manufacturing; a name that stands for unrivalled quality, dependability, durability and premium performance.**

Now, developed from its well-respected and fully proven burner platform, Cochran have launched the new 40 mg/Nm<sup>3</sup> NOx UltraNOx burner range. Fully MCPD Compliant and Hydrogen ready, this benchmark standard has been achieved without the need for Flue Gas Recirculation (FGR). FGR can be offered to further reduce NOx emissions, where we have achieved results down to 20 mg/Nm<sup>3</sup>.\*

Delivering low operational noise and excellent fuel efficiency across the 700KW to 4 MW burner net heat output range, the new 40 mg/Nm<sup>3</sup> NOx UltraNOx has been rigorously tested in the field. For maximum efficiency and flexibility, the UltraNOx can be offered with all leading combustion control systems.

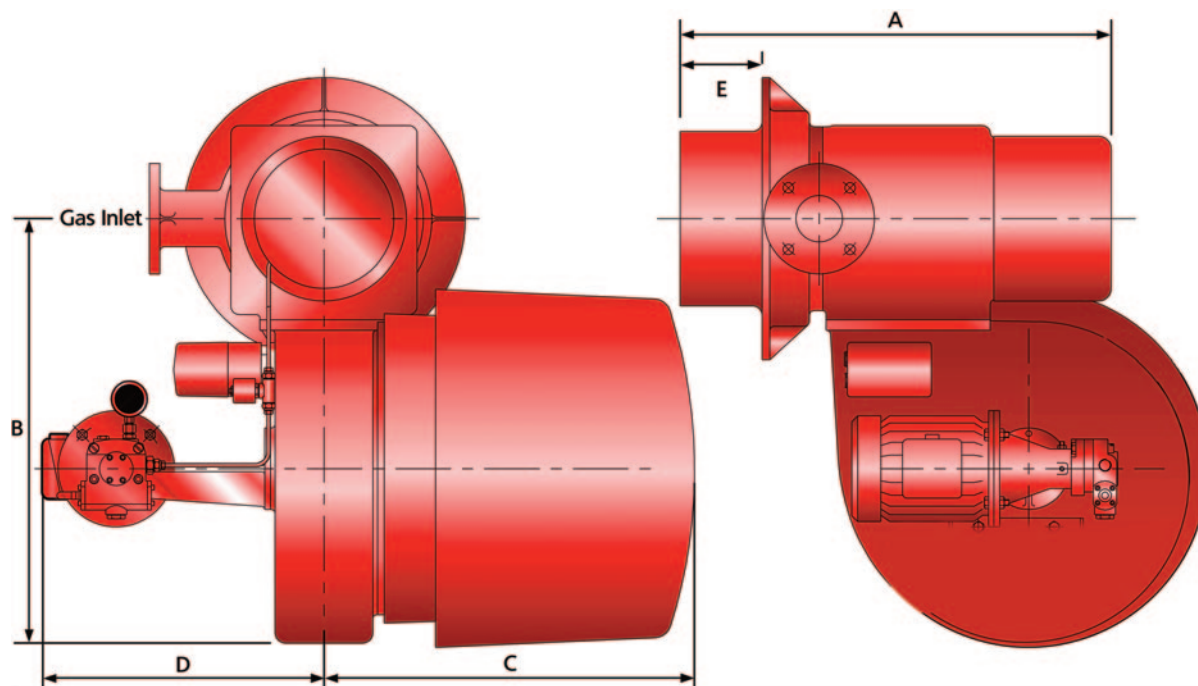
## **Cochran's UltraNOx Types S and T burners offer the following key features:**

- Fully MCPD compliant and 100% Hydrogen ready burners delivering from 700KW to 4 MW burner net heat output. Suitable for firing oil or gaseous fuels including Hydrogen or for triple fuel firing, providing maximum flexibility.
- Minimum turndown for Type S and T burners 4.5:1 gas and 3:1 on fuel oil.
- From 40 mg/Nm<sup>3</sup> NOx @3% O<sub>2</sub>, without the need for FGR\*. For maximum efficiency and flexibility, the UltraNOx can be offered with all leading combustion control systems.
- Digital combustion systems can be incorporated into the burner control package.
- Available with integrated modular options, VSD, O<sub>2</sub> trim, sequencing, remote monitoring.
- Available as a rapid combustion head upgrade retrofit to existing boiler plant - significantly cutting NOx emissions and reducing CAPEX.
- Low operational noise, featuring a muffler and air intake silencer as standard.
- Proven design with extensive real-world testing in the field and supported by Cochran's network of highly experienced UK-based service engineers. Cochran's famous build quality, designed, developed, manufactured and tested in-house at our UK factory, with a powder coated finish for maximum durability. Bespoke design solutions and applications available.



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## UltraNOx Gas and Dual Fired Types S and T Burners

Boiler Duty	Kg/Hr	1000	1500	2000	2500	3000	3500	4000	4500	5000	5600
Burner Heat Output for all applications	KW	716	1075	1433	1791	2149	2507	2866	3224	3582	4012
Gas Firing Dimensions	A	mm	827	876	876	876	876	907	1074	1074	1074
	B	mm	684	727	727	727	727	737	932	932	932
	C	mm	592	617	617	617	617	678	853	853	853
	D	mm	285	285	285	300	300	300	361	361	361
	E	mm	166	166	166	141	141	141	141	141	141
Oil/Dual Firing Dimensions	A	mm	827	876	876	876	876	907	1074	1074	1074
	B	mm	684	729	729	729	729	737	932	932	932
	C	mm	592	617	617	617	617	678	853	853	853
	D	mm	260	262	262	262	262	483	388	388	388
	E	mm	166	166	166	141	141	141	141	141	141
Turndown - Natural Gas Firing		4 : 1	4 : 1	4 : 1	4 : 1	4 : 1	4.5 : 1	4.5 : 1	4.5 : 1	4.5 : 1	4.5 : 1
Turndown - Distillate Oil Firing		2 : 1	2 : 1	2 : 1	2 : 1	2 : 1	3 : 1	3 : 1	3 : 1	3 : 1	3 : 1
NOx based on ST28 type furnace	mg/Nm <sup>3</sup>	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70	40-70

**Options:** Remote monitoring and data logging - accessible via Internet; O<sub>2</sub> Trim; Exhaust Gas Monitoring; and Integral Gas Leak testing.

**Note:** All performance figures anticipated and based on a conventionally fired three pass wet back steam boiler with an normal operating pressure of 10 barg.

\* Information based on standard test application in test conditions and may vary depending on your application.

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