

# TECHNICAL BULLETIN

## PRODUCT: BUDERUS 500/24C 28C AND 24S

### CO<sub>2</sub> MEASUREMENT (Nat Gas):

During annual servicing of the Buderus 500 range of boilers, an analyser may be used to check that good combustion is being achieved.

#### Flue analyser test.

- ▶ Operate the boiler in maximum output as outlined in section 2.1.8 of the installation manual.
- ▶ Ensure your analyser is correctly set and insert the probe into the flue test point. Ensure the test point is sealed by using a conical adaptor.
- ▶ Allow the reading to stabilise.

For Natural gas G20, the theoretical optimum CO<sub>2</sub> level is 9.2%.

The CO<sub>2</sub> reading should be within 8.5% and 9.5% (with a tolerance of +0.5%/-0.5%).

If after checking the CO<sub>2</sub> reading adjustment is found to be necessary, the gas air ratio should be checked following the method laid out in the installation manual (section 2 - Commissioning 721.531A), with the use of a digital manometer.

An analyser should not be used to set the gas air ratio, only to confirm correct combustion is being achieved.

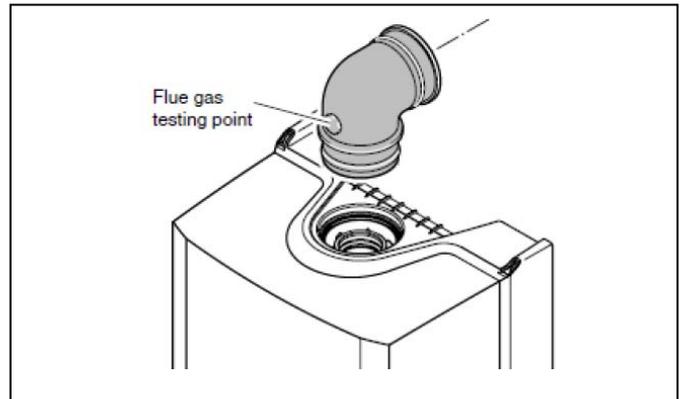


Fig 1: Flue test point

If the CO<sub>2</sub> reading is still outside the permissible band, (including the tolerance +0.5%/-0.5%), the cause must be investigated.

The gas supply, flue system and condition of the appliance should be checked.

The gas/air ratio should be re-checked following the method laid out in section 2 of the installation manual, by the use of a digital manometer.

The correct gas injector size should be checked against Table 6.

Type of gas	Gas injectors ∅ [mm]		Venturi tubes
	24C	28C	
Buderus 500			
Natural gas H (G20)	4.45	4.45	Standard
LPG	3.45	3.45	Standard

Tab. 6 Gas injector diameter