MECHATECH SYSTEMS TECHNICAL VACUUM SOLUTIONS

S35 MULTIPURPOSE GAS SAMPLING UNITS

FOR SAMPLING SULPHUR 35, CARBON 14 AND TRITIUM, IN CARBON DIOXIDE AND IN AIR

MechaTech Systems manufacture, supply and maintain a range of S35 Multi Purpose Gas Sampling Systems and Particulate Collection Systems. The instruments are used to sample stack gas filters, and collect radioactive iodine species for analysis, for sampling Sulphur 35, Carbon 14 and Tritium, in Carbon dioxide and in air. Our nuclear power generation customers include EDF, Magnox and their supply chain. We also supply spares, such as S35-01A Tube Furnaces (also known as oxidation furnaces or instrument conditioning heaters) and glassware originally supplied by Severn Science Ltd.

PRINCIPLE OF OPERATION

Carbon dioxide is drawn from the sampling point at a controlled rate into a combustion furnace packed with quartz wool at 1000°C. Any sulphur, carbon and hydrogen containing compound in the gas is oxidised by air, supplied continuously through a separate line, to produce sulphur dioxide, carbon dioxide and water respectively. The reaction products are then selectively absorbed into aqueous solutions of hydrogen peroxide and sodium hydroxide, which are then analysed by appropriate radioactive counting techniques. For sampling air, the principle is the same except that a separate air line for oxidation is not required.

TECHNICAL DATA

Controller:	Eurotherm 2132i / 2116i
Electrical supply:	Single phase 110 volt 50Hz
Maximum mass:	40 Kgs
Heat up period:	approx. 2 hours
Tube Furnace:	TF1125
Furnace temperature:	1000°C
Suggested flow rates	
Co2:	2 litres/minute
Air:	1 litre/minute
Approximate dimensions:	Width 975mm x Height 425 mm x Depth 425mm

PLEASE CONTACT US FOR A QUOTATION AND/OR FURTHER INFORMATION:

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ISO 9001 certified | UKAS | Achilles UVDB QUALIFIED | Achilles UVDB AUDITED | REFCOM F-GAS CERTIFICATED | Supply Chain Charter for Nuclear Decommissioning Sites Signatory

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