

## CARBON SULPHUR ANALYZER

Sr#	Description	Qty.
1.	<p><b><u>Introduction</u></b>            One table top Carbon / Sulphur Analyzer incorporates the latest combustion technology. It should be designed for the rapid simultaneous determination of Carbon and Sulphur in <b>stainless steel, cast iron, copper, alloys, ores, cement, ceramics, carbides, minerals, sand, glass</b>, etc. The compact system should include a 16-bit microprocessor, an induction furnace and solid state Infrared detectors with auto zero and auto range control. PC based Software / Hardware for operation and data processing, and data output device.</p>	01
2.	<p><b><u>Specifications</u></b></p> <ul style="list-style-type: none"> <li>i. <b>Normal sample weight</b> =0.5g to 1g for steel and cast iron</li> <li>ii. <b>Normal analysis time:</b> 40 to 50 seconds</li> <li>iii. <b>Furnace type:</b> Induction, ~20 MHz, 2.2 kVA max</li> <li>iv. <b>Furnace dust cleaning:</b> Automatic</li> <li>v. <b>Detection Range:</b> from ppm to %age level</li> <li>vi. <b>Detection method:</b> Solid state infrared absorption for carbon and sulphur</li> <li>vii. <b>Interfaces:</b> Balance serial, printer parallel, computer serial.</li> <li>viii. <b>Power requirements</b> 230 V AC ±10% 50/60 Hz max 15 Amps 3450 Watts</li> </ul> <p><b><u>Chemicals:</u></b></p> <ul style="list-style-type: none"> <li>i. <b>CO<sub>2</sub> Trap:</b> Sodium hydroxide or equivalent</li> <li>ii. <b>H<sub>2</sub>O Trap:</b> Magnesium perchlorate or equivalent</li> <li>iii. <b>Tungsten Accelerator:</b> 5 kg</li> <li>iv. <b>Catalyst:</b> Copper oxide or equivalent</li> </ul>	
3.	<p><b><u>SPARES and ACCESSORIES</u></b></p> <p><b>Weighing Balance:</b> 0.0001g to 60 g ±0.0001  <b>IR Cell:</b> One spare sets each for low carbon and low sulphur, high carbon and high sulphur  <b>Computer:</b> Latest i5 / i7 with 1T hard, super/DVD ROM with LED monitor (28 inch) along with trolley and printer.  <b>Standards:</b> Carbon and Sulphur Standards for both low and high range. However, Standards should be ARMI (Analytical Reference Materials International), CRMs (high-quality Certified Reference Materials), ASTM and NBS or equivalent.            Ceramic Crucibles: 5000 No. required (Suitable for analysis at low ppm, very high temperatures and low blanks)</p>	
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<b>5.</b>	<p><b><u>Limit of Supply:</u></b> The supply includes complete unit with required optional accessories along with FIVE years operation, ONE year warranty, and service and operation manuals. All consumable spares and chemicals should be sufficient for FIVE years smooth operation. The system should be tropicalized to 50°C. Required literature for evaluation including application notes should be enclosed with the offer. Training of two Scientists/Engineers each for operation and maintenance at the cost of Suppliers locally is desirable.</p>	
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