

**DEPARTMENT OF MECHANICAL ENGINEERING
NATIONAL INSTITUTE OF TECHNOLOGY: TIRUCHIRAPPALLI**

Tender Notification No.13/2007

SAFETY ENGINEERING LABORATORY

Item No. 3 Respirable Dust High Volume Sampler with thermo electrically cooled gaseous sampling attachment

DETAILED SPECIFICATIONS

Specifications:

<i>Flow Rate:</i>	0.9 to 1.4 m ³ /min free flow (with flow stabilization disabled and electronic flow controller to maintain constant flow)
<i>Particle size:</i>	Particles of 10 microns and below collected on Filter Paper holder. SPM bigger than 10 microns collected in a separate sampling bottle under the cyclone.
<i>Sampling Time:</i>	28 Hrs (maximum)
<i>Sampling Time Record:</i>	0 to 9999.99 hrs recorded on a Time Totalizer
<i>Automatic Sampling:</i>	24 hrs programmable timer to automatically shut off the system after pre-control set time interval.
<i>Power Requirement:</i>	220V, Single Phase, 50Hz AC mains supply.
<i>Size and Weight:</i>	400×300×650mm, 60kg.
<i>Filter Papers:</i>	200 sheets, GF/A Grade, Glass Fibre Filter, 8" x 10"

Thermo electrically cooled Gaseous Sampling Attachment Specifications:

<i>Flow Rate:</i>	0.3 to 3 LPM, ±2% accuracy on span.
<i>Flow Control:</i>	Four inlet and one outlet with built in needle valves for flow control.
<i>Sampling Train:</i>	4Nos. of 35ml Borosilicate midjet glass impingers.
<i>Reagents:</i>	Absorption and analysis of Gaseous Pollutants like NO _x and SO ₂
<i>Size and Weight:</i>	240×125×350mm, 2kg.
