



APM 411TE



APPLICATION

APM 411TE has been developed as an attachment of High Volume Respirable Dust Sampler with all needed facilities and provisions. It is a sampling instrument for monitoring of SO₂ and NO₂ in ambient air besides many other inorganic gases like H₂S, Cl₂, F₂, NH₃, Mercaptans etc. which are absorbed in aqueous medium. All fore said gases can be sampled at controlled constant flow rate and desired low temperatures around impingers can be maintained through out sampling period without the need to pack ice in the cold box. Provision has been made for sampling four gases at a time. The APM 411TE is housed in a robust epoxy painted cabinet designed for outdoor field use.

WORKING PRINCIPAL

Gaseous sampling requires only a few LPM of air flow. In the process of gaseous pollutant monitoring, Sampled air is bubbled through suitable reagents that absorb specific gaseous pollutants and the absorbing media is analyzed as per standard wet chemical methods. The impingers temperatures can be maintained lower than the atmospheric temperature by using thermo-electric cooling.

TECHNOLOGICAL ADVANCEMENT

The APM 411TE uses Peltier effect solid-state heat pump units having no moving parts to keep the impingers upto 25°C below ambient temperature. This means that even in peak summer when outdoor temperature goes above 40°C Impingers placed in the APM 411TE will remain at 15°C. A built-in thermostat constantly monitors the cold box temperature and ensures that absorbing solutions are maintained within +/- 1°C of the set point. Envirotech has specially designed the cooling system to provide effective cooling at the point of use via a cold-plate that surrounds the bottom portion of each impinger.

The APM 411TE is thus able to attain desired temperature within a few minutes of powering-on of the system. Filter and improved valve design maintain constant sampling rate In the APM 411TE special silica gel filter columns have been added in the outflow path of each impinger and the needle valve design has been modified to eliminate the deposition of the particulates in the valve units that controlled the flow rate, that escaped through the bubblers.

1 Year Warranty



APM 411TE



FEATURES

- Thermo-Electric Cooling system to keep impingers at a cool 15°C even when ambient temperature is 40°C. Focused cooling for rapid and efficient cooling.
- Special Silica-gel filter tubes to remove entrained particulates & moisture.
- Improved valve design maintains constant flow rate.
- Four 35ml Impingers placed in a cooled Ice Tray.
- Short term power failures are not influencing cold box temperature where impingers are kept.
- Cabinet is lockable and sturdy.
- Cabinet can be hooked on the body of dust sampler or it can be kept on the ground

SPECIFICATION

Flow Rate Range	0.2 to 2 LPM, accuracy : 2% of span. Least count 0.05 LPM
Flow Control	Four inlet and one outlet with built in needle valves for flow control of each unit.
Sampling Train	4 Nos. of 35ml Borosilicate glass impingers.
Size	240 x 125 x 350mm

1
Year
Warranty

*Specifications are subject to change without any prior notification



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