

# Intake Air Humidity System For Octane Rating Engine

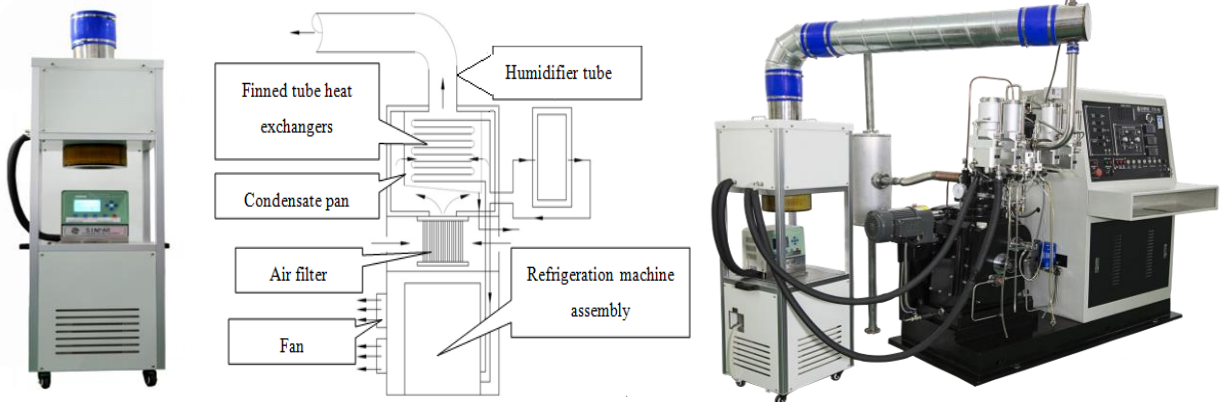


**Shanghai Sinpar Scientific Instrument Co.,Ltd**  
Manufacturer of Octane Rating Engines in China  
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# Intake Air Humidity System

**Intake Air Humidity Refrigeration Unit** is equipped with a adjustable refrigeration system replacing the ice tower previously used for chilling and dehumidifying intake air to research and motor method octane test engines.

This unit is connected through the humidifier tube to the carburetor for regulating the moisture content of intake air into octane engine at a constant 25-50 grains of moisture prescribed of dry air as specified by ASTM D2699, ASTM D2700, ASTM D2885.



**The refrigeration system** is equipped with a separate stainless-steel reservoir of 10-liter refrigerating liquid. The temperature range of the cooling fluid could be from ambient temperature to  $-10^{\circ}\text{C}$  with the stability of  $0.5^{\circ}\text{C}$ . The refrigerating temperature and refrigerating time are adjustable, using a digital control panel.

**The cooling circulation system** is equipped with a pump to circulate the cooling fluid to octane engine's carburetor and to sample fuel bowl which needs chilling. Plastic hoses are used for connecting to the carburetor by the quick disconnects couplings for cooling the sample fuel bowl. This circulation system includes a condensate pan and drain line.



**The temperature control panel** includes a main power switch, a pump power switch, a refrigerating time adjust-key and a digital display for temperature controller.

The equipment comes with sound-light alarm, when it's lack of cooling liquid.

# Specification

<b>Applicable Standard</b>	<b>ASTM D2699, ASTM D2700, ASTM D2885</b>
Application	For RON and MON method Octane engines
Temperature Control	Digital control panel
Temperature Cooling Range	From laboratory ambient to -10°C
Temperature Stability	±0.5°C
Intake Air Chilling	1°C-3°C
Cooling Fluid Volume	8-10L liquid
Cooling Medium	Ethylene glycol
Circulation Mode	Pump circulates the cooling liquid from the reservoir to engine's carburetor through plastic hoses
Connection Mode	Quick connect/disconnect
Power Switches	A main power switch and a pump power switch
Power Supply	220V 50Hz/60Hz 2KW
Safety System	Sound-light alarm for shortage of cooling liquid
Weight	95kg
Dimension	46x46x160cm (without humidifier tube)



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