SINPAR
PETROLEUM TESTING EQUIPMENT

Intake Air Humidity System for Octane Rating Engine

Shanghai Sinpar Scientific Instrument Co.,Ltd

Professional Manufacturer of Octane Engines

www.sh-sinpar.com

Intake Air Humidity System

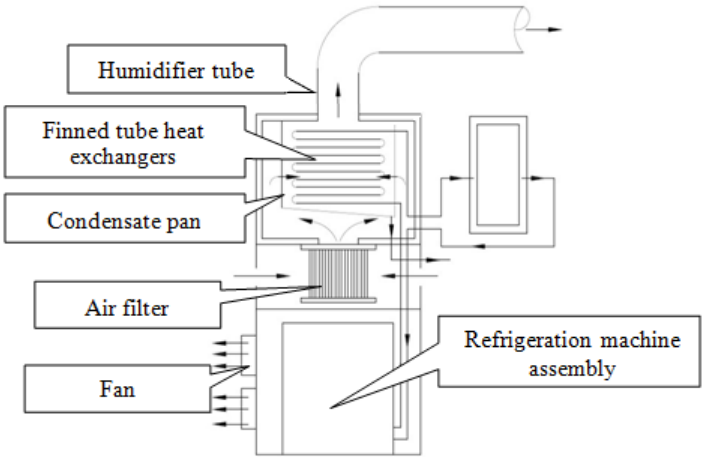
Intake Air Humidity Refrigeration Unit

is equipped with an adjustable refrigeration system replacing the previous ice tower, 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, D2700 and D2885.

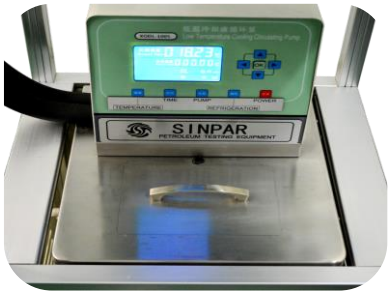
The intake air control system is installed in a movable industrial cabinet, suitable for different laboratory space conditions.

Air Dehumidification Process:



The system provides constant filtered air, which is dehumidified through pipes and finned cooling heat exchangers in which refrigerant circulates.

Intake Air Humidity System

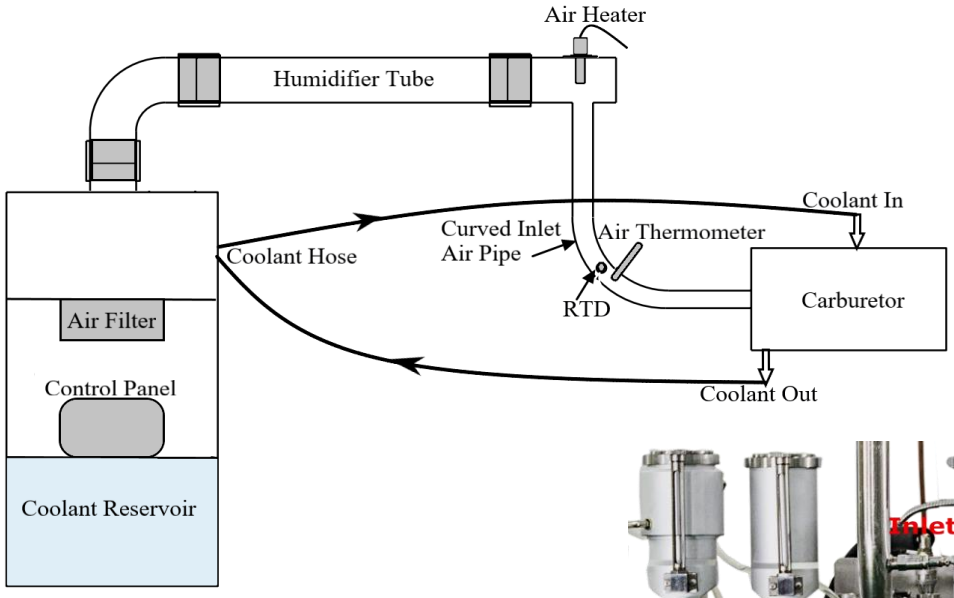


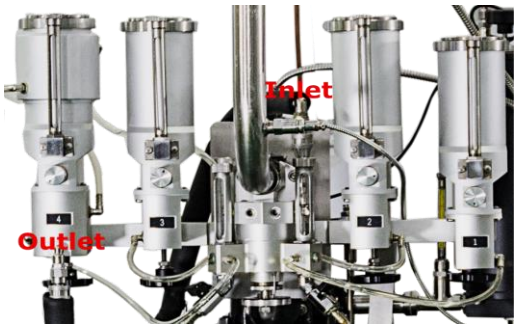
The Refrigeration System
is equipped with a separate stainless-steel reservoir of 5-liter refrigerating liquid(glycol).
The temperature range of the cooling fluid could be from ambient temperature to -10°C with the stability of 0.5°C. The refrigerating temperature and refrigerating time are adjustable, using a digital control panel.

The Control Panel
contains switch buttons of panel power, refrigeration, circulating pump, and cooling temperature and time setting buttons, as well as a data display screen.

The main power interface and switch are located at the back of the panel.

Default Settings:
The unit has been set by default to be suitable for octane engines. It can be used after the power is switched on.





The Cooling Circulation System
is equipped with a pump to circulate the coolant to the octane engine's carburetor and to the fuel bowl which needs chilling.

Plastic hoses are used for connecting to the carburetor by the quick couplings for cooling the carburetor.

Specifications

Applicable Standard	**ASTM D2699, ASTM D2700, ASTM D2885**
Application	For RON and MON method Octane Engines
Operation Mode	Digital control panel
Temperature Cooling Range	From laboratory ambient to -10°C
Temperature Control Stability	±0.5°C
Cooling Fluid Volume	5 liters
Cooling Medium	Glycol
Cooling Circulation	The pump circulates the cooling liquid from the reservoir to the carburetor through plastic hoses
Cooling System Connection	Quick couplings
Safety System	Audible alarm for shortage of cooling liquid; Abnormal temperature alarm; Over temperature and overload protection
Air Filter	Easy change
Power Supply	220V 50Hz/60Hz with Single Phase
Weight	95.00 kg
Dimension	46.0x46.0x160.0 cm (without humidifier tube)

**Due to continuing products development, the illustrations used may differ from actual products, and specifications are subject to change.*

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