

VWR Vacuum oven**Model: Model 1430S****Location of Machine:** Composites Lab, RFM 1218**Location of SOP and Machine Operating & Safety Manual:** Composites Lab website under resources; Composites Lab TRACS site; and Hardcopy near machine.**Emergency Contact:**

- Call 911
- Call EHS & Risk Management at 512-245-3616
- Call Head Lab Technician, Dr. Ray Cook (office 512-245-2050)
- Call Dr. Jitendra S Tate (office 512-245-4872)

Before using this machine:

- You must have permission from Dr. Tate.
- You must have received formal training from technician or, trained research student (designated by Dr. Tate) related to machine safety and operation.
- You must read and understand **SOP and Machine Operating & Safety Manual.**
- You must use this machine under direct supervision of Dr. Tate or, Dr. Cook or, trained research student (designated by Dr. Tate).
- You must have signed “Lab Rules” document with Dr. Tate. This document must be signed every semester fall, spring, and summer (as applicable).
- If you do NOT follow above instructions you will be held responsible for your own safety and damages.

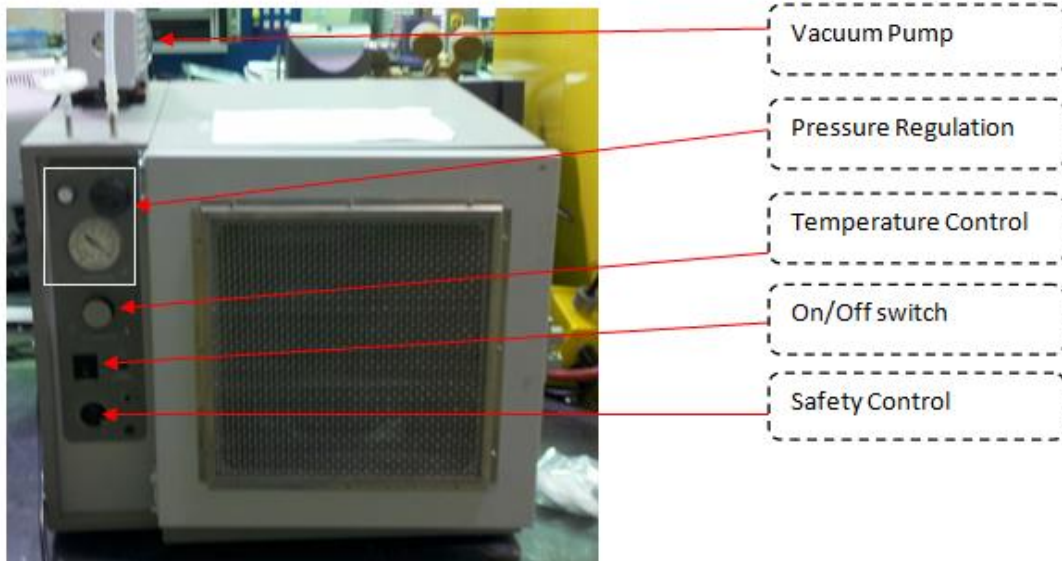
Safety Precautions:

Protective Equipment: Prior to performing this procedure, the following personal protective equipment must be obtained and ready for use: **Gloves, Safety Goggles, Lab Coat and Respirator.**

Important Safeguards:

1. To avoid explosion, glassware that has been rinsed with an organic solvent should be rinsed with distilled water before use in oven.
2. Be cautious of chemicals that might pose a hazard because of acute or chronic toxicity. The following safety equipment must be accessible and ready for use: (e.g. chemical fume hood, biological safety cabinet, laminar flow hood, chemical spill kits) **Exhaust system or/and respirators for toxic material.**
3. In the event that a hazardous material spills during a procedure, be prepared to execute the following emergency procedure: **Clean with cleaner according to MSDS of materials used.**
4. This procedure will result in the follow regulated waste which must be disposed of in compliance with environmental regulations

VACUUM OVEN



General information

VWR 1430S vacuum oven is ideal for general drying, curing and desiccating, annealing, outgassing, and aging tests. It is configured to work with reduced pressures and/or N₂ atmosphere. The oven is equipped with separate vacuum and gas ports, each with its own manual valve. The temperature is manually controlled and varies from ~ 20°C to 250°C. The maximum achievable vacuum is ~ -27 in. Hg. The N₂ flow can be regulated from 0 to 10 liters / min.

Specifications:

- Weight-115 lbs.
- Dimensions- Exterior : 23.8*26.3*20.3(W*D*H) Interior : 12*20*12(W*D*H)
- Capacity-1.7 cubic feet
- Temperature- Range: Amb. +5° to 200°C
Uniformity: 3.0@ 100°
Sensitivity: 1.0° C





Accessories:

- Vacuum filters:



- Vacuum hose:



Operational Procedure for Vacuum Oven	
<p>1. Turning on</p> <ul style="list-style-type: none"> • Flip power switch to ON position • Press red activation switch. • If executed properly green Heat Activated” light will turn on. • Once heated to desired temperature “Heat Activated” light will turn off and red light turn on. 	
<p>Setting Temperature</p> <ul style="list-style-type: none"> • Temperature chart corresponding to desired temperature is located above the vacuum oven. • Set the number corresponding to desired temperature using "Set Temperature" knob ➤ Formula is as follows: $y = \frac{x-40}{18.5}$ <ol style="list-style-type: none"> a. y= number value to set b. x= desired temperature • “Safety Control” should be set to maximum working temperature for current material being used. • Will automatically turn off the vacuum oven, when desired temperature is met or exceeded. 	 
<p>Pressure Control</p> <ul style="list-style-type: none"> • Ensure gasket is in place between door and oven. • Close “Vent” valve • Open “Vacuum” Valve • Turn vacuum pump to “on” position. • Pump down to desired pressure using “Vacuum Gauge” • Close “Vacuum” valve and turn vacuum pump to “off” position. 	
<p>Turning Off</p> <ul style="list-style-type: none"> • Once the pressure was utilized, open “Vent” valve to release internal pressure. • Turn “Power Switch” to “off” position. 	

<p>Cleaning</p> <ul style="list-style-type: none">• Wait until the oven is cooled down• Clean up all spills using cleaning agent recommended by MSDS of the materials.	
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