

# Comby® Sub-Zero



By:  Panasia Engineers Pvt. Ltd

# About *Panasia Engineers Pvt. Ltd.*

We are known for innovative designs in HVAC&R

We also have many designs related to green technology like “Structure Cooling”

All of our products performs with high energy efficiency

We provide user specific designs to suit all the clients needs

Our systems achieve a highly controlled environment within control specifications

# Comby<sup>®</sup> Sub-Zero

Breaks The Humidity Barrier

Air at 20°C and 20% RH(-5°C Dew Point)

No Heaters i.e. Produces own reheat

No Desiccants

No delay for defrosting

Continuous operation

Precision control ( $\pm 2^{\circ}\text{C}$  &  $\pm 3\%$ )

# The “Comby<sup>®</sup> Sub-Zero” Principle

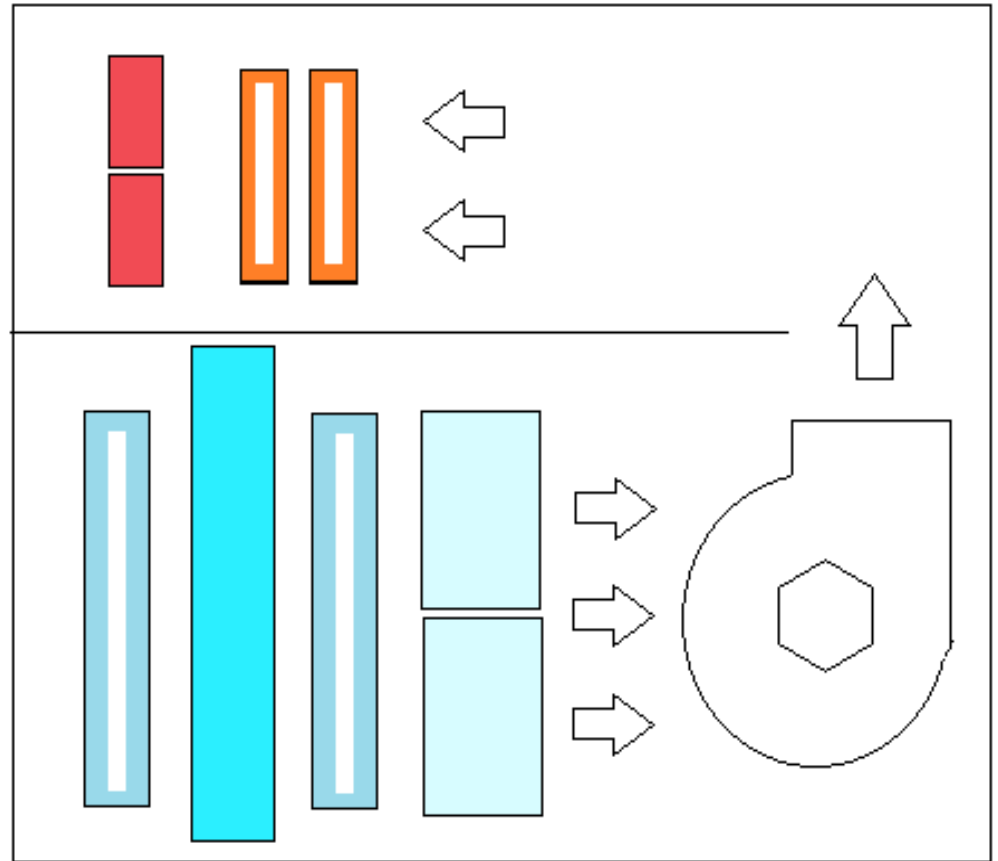
Use the return air to both re-heat the supply air at the same time pre-cool itself.

Use reflux boiling element to perform the above functions.

Start the unit in the fast cooling mode, using only the first stage.

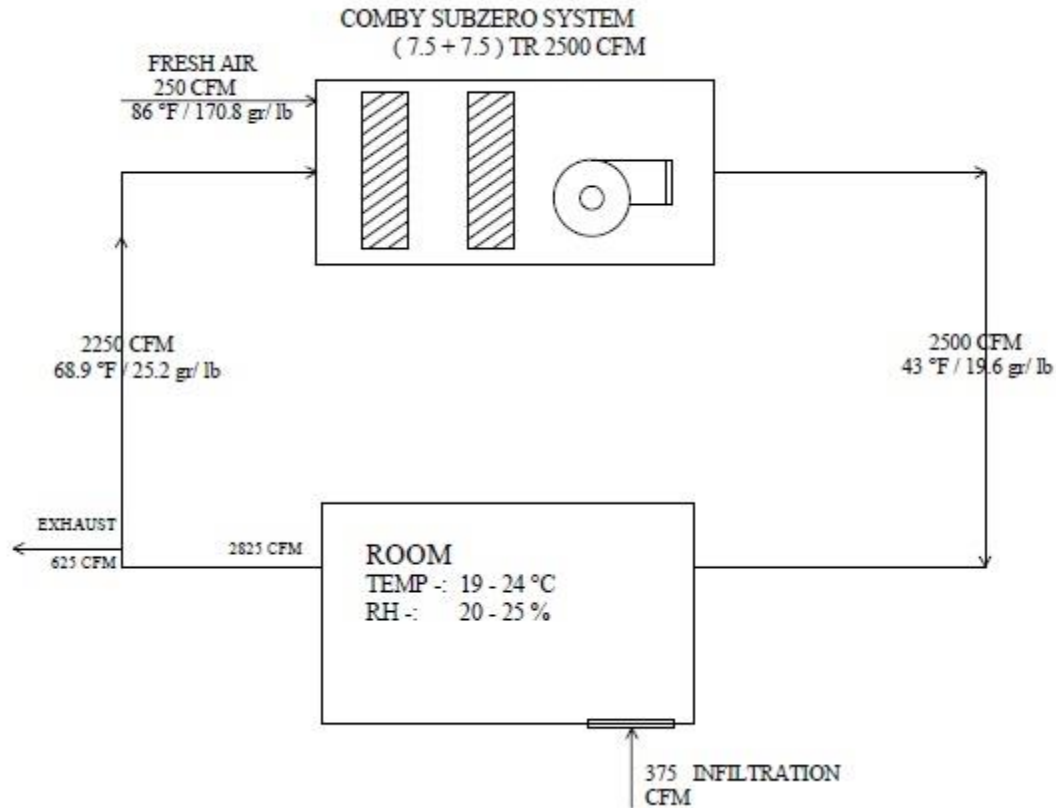
Start the second stage when the first stage reaches its design conditions.

Extra Reheat from the Compressor will turn on / off depending on the room conditions

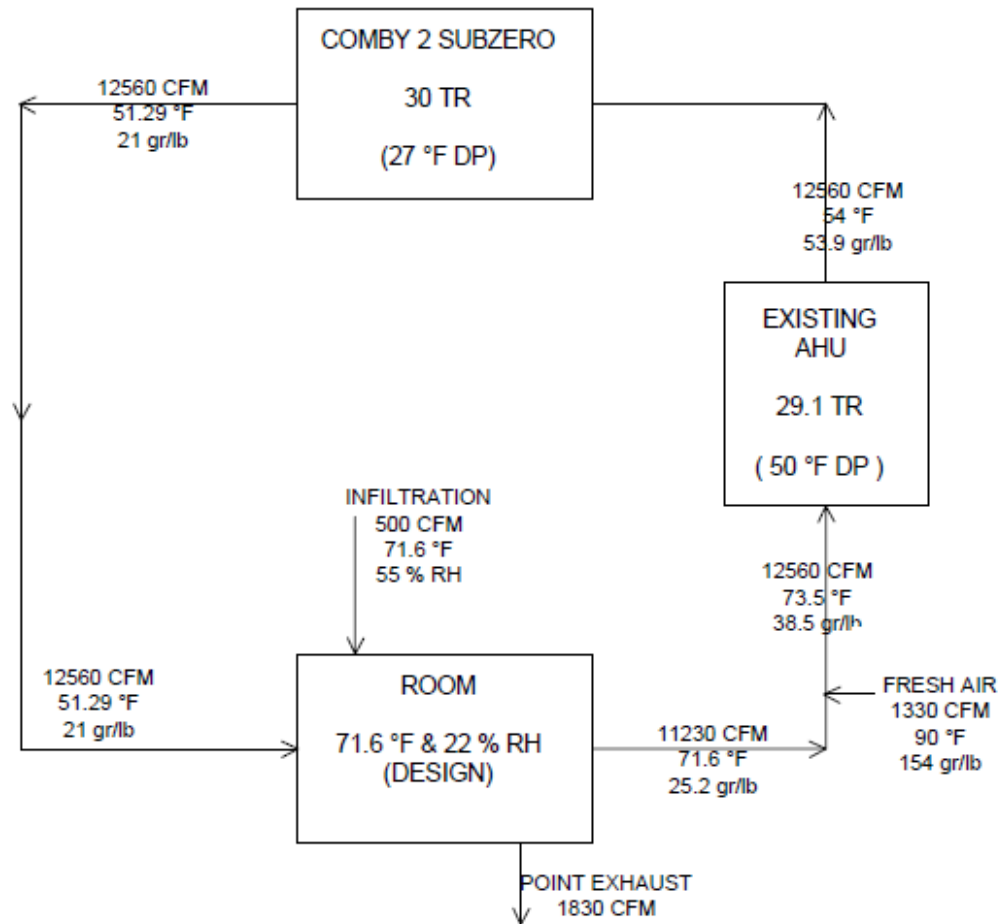


**Comby<sup>®</sup> Sub-Zero**

# Typical Air-flow diagram for **Comby**



# Typical Air-flow diagram for “Comby 2”



# Typical Uses of **Comby** Sub Zero

Pharma Production Area

Inlet Air for FBD / Coaters / Isolation Chambers

Storage Area's

Food / Hygroscopic material Packing Area

Low Temperature Drying of Chemicals/Foods/Substances

Energy Saving (Replacing Desiccant Dehumidifiers)

**Comby 2** can be used for reducing RH in Existing AHU's

# Top Clients



Cipla



ipca  
A dose of life



SciTech



Lupin Ltd.

Cipla  
Laboratories

IPCA  
Laboratories

SciTech  
Laboratories

Lupin Ltd.