



**Making ventilation work**

**VENTILATION DETAILS**  
**JON EAKES**

**EVERYONE SAYS WE NEED VENTILATION**

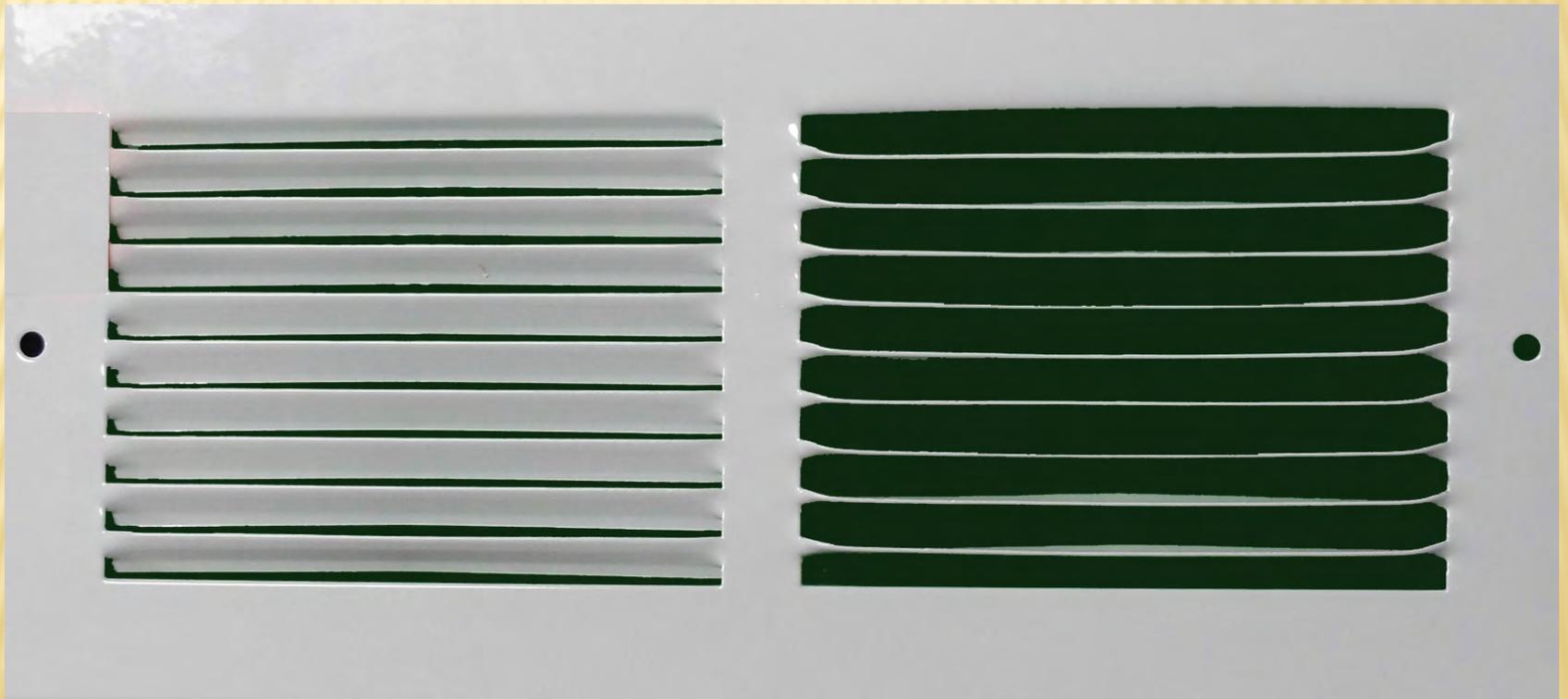
**But why doesn't it work?**



# GRILLS

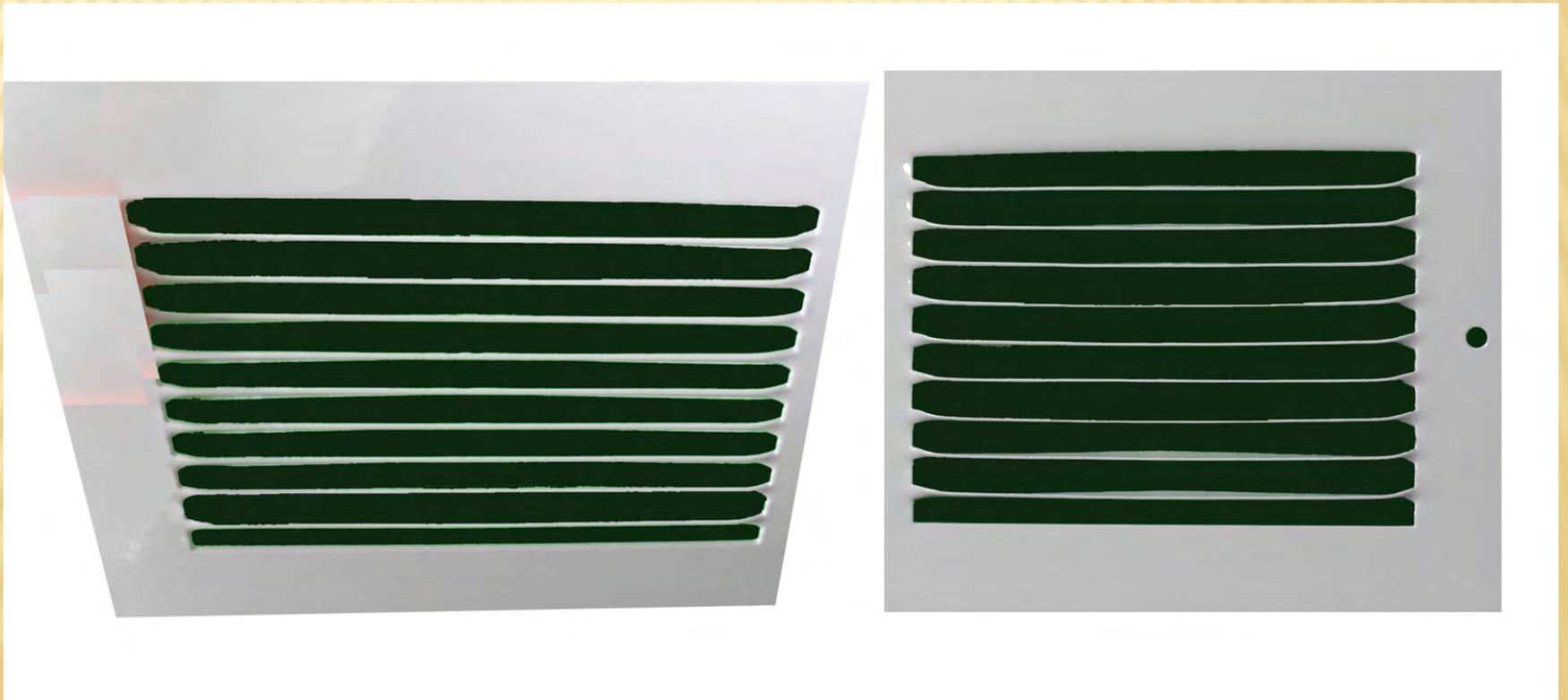
Angled louvers

Straight grill



# GRILLS

Less open space + deflection = reduced air flow



# DUCT SEALING

Cloth duct tape – NO!



With backer paper



**Aluminum Tape**

**–YES–**

Particularly  
recommended  
for access doors

FlexPro – no backer



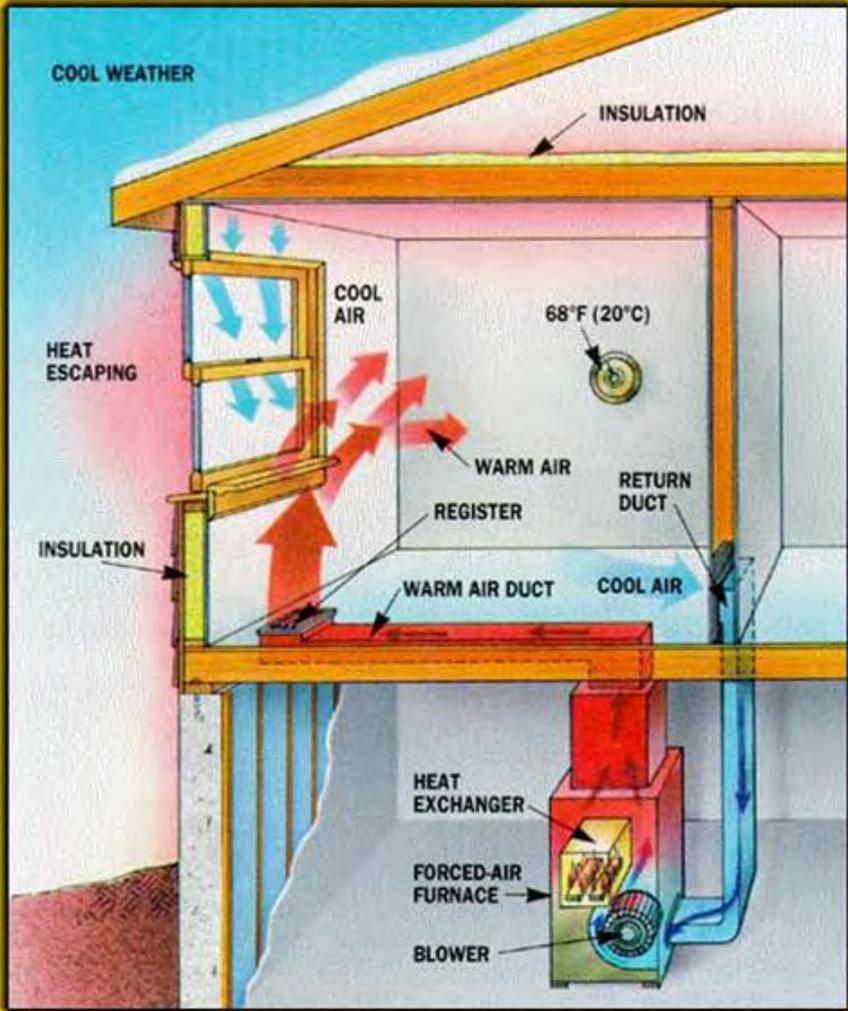
# DUCT MASTIC & FIBERGLASS TAPE

The best duct sealing

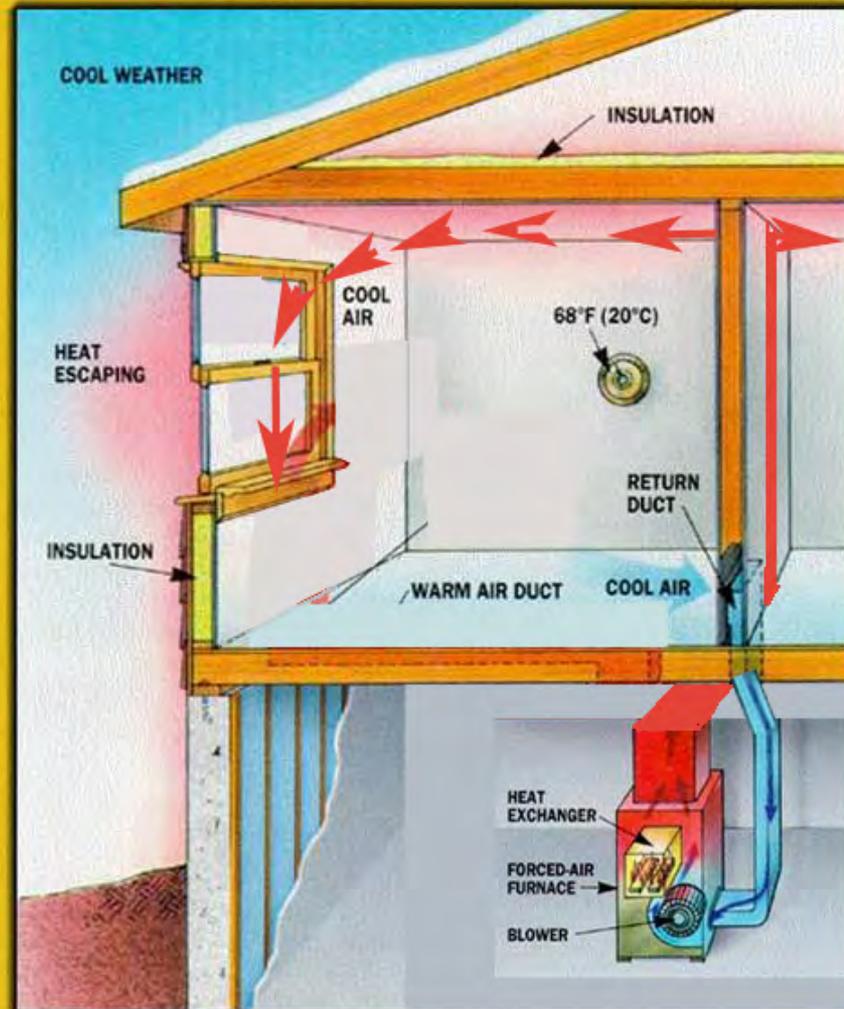


Permanent with Total Coverage

# THROW & DRAW TRADITIONAL



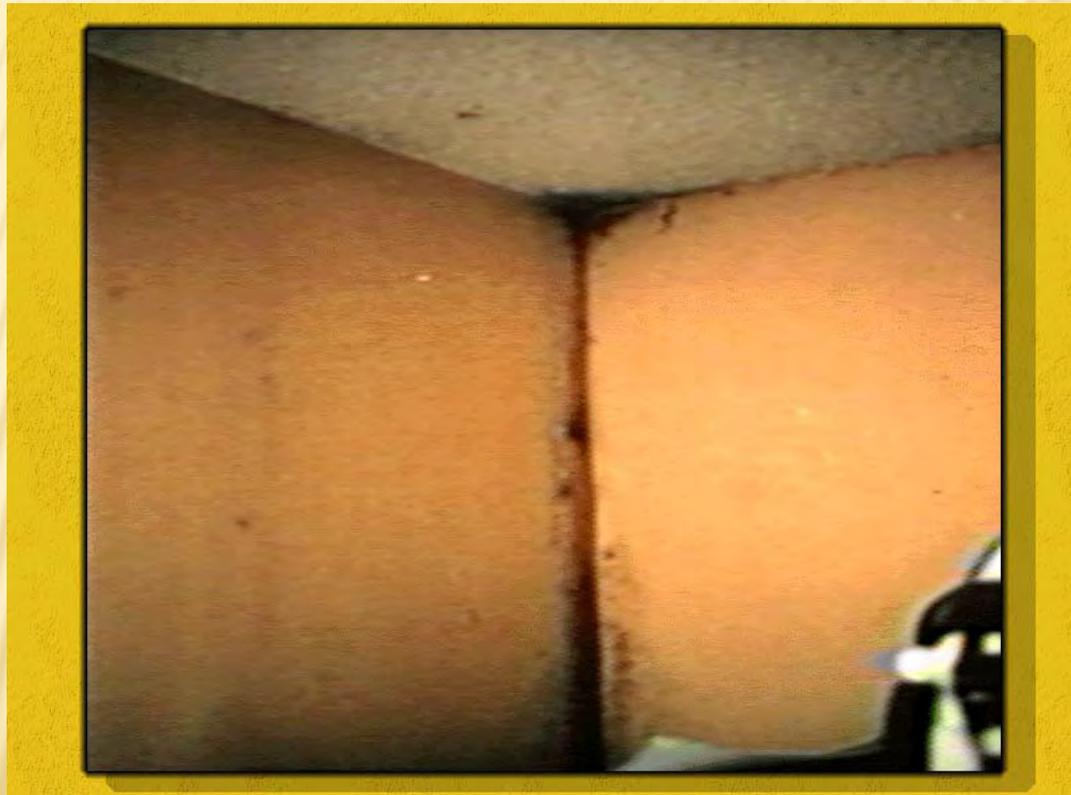
# THROW AND DRAW OLD CONCEPT — NEW TECHNIQUES



# AIR CIRCULATION

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You've all seen surface mould



# COLD SPOTS & HIGH HUMIDITY

If moisture collects – Mould will form



**BEATING MOULD**  
**RAISE THE TEMPERATURE OF THE SURFACE**  
**REDUCE HUMIDITY**

- × Improve the insulation
  - × Stop cold air drafts
  - × Create air circulation
- × Ventilate

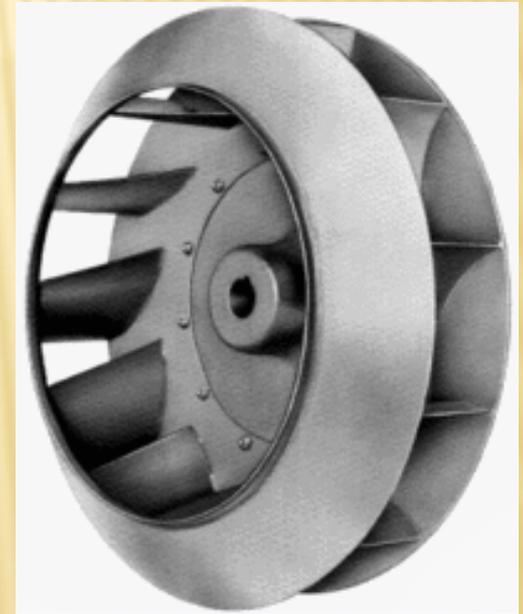
# WHEN FANS ARE NOISY THEY GET TURNED OFF!

**Blade**



**Noisy**

**Impeller**



**Quieter**

# FAN WHISTLE

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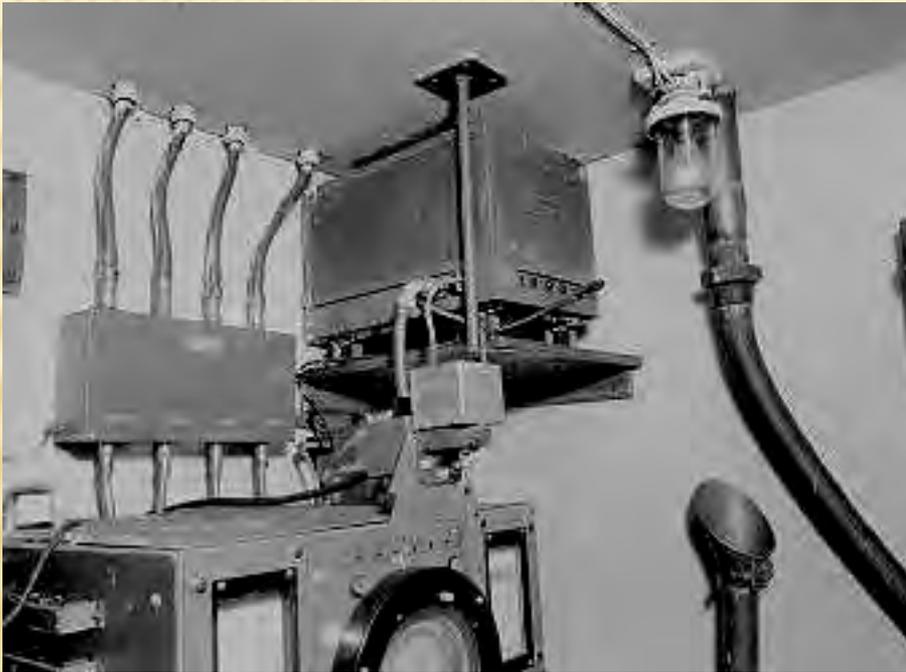
× Speed of air

× Shape of grill

× Distance from fan

# THE CONFLICT BETWEEN VENTILATION & SOUND PROOFING

Ducts carry sound

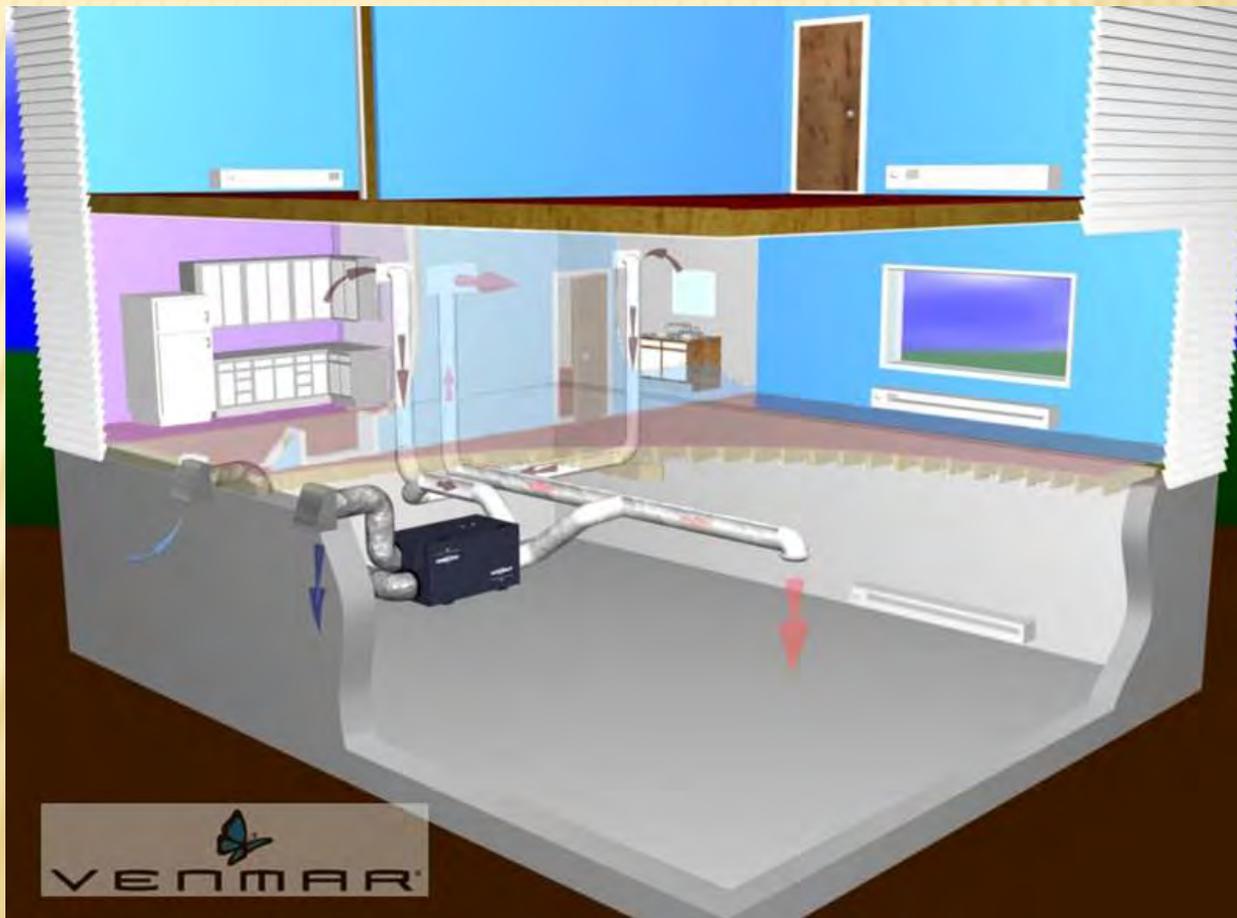


WW2 Marine Voice Pipes



# BALANCED 2 FAN SYSTEMS

## The HRV



**THINK LIKE AIR**

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**And you will breath better**