

# SPECIAL INDUSTRIAL AIR CONDITIONER

# POWER COOL & HOT



LOCAL COOLING INDUSTRIAL  
AIR CONDITIONER



"SPECIAL AIR CONDITIONER"  
utilizes compressed air generated  
by an air compressor.

## What is POWER COOL?

- / Used in workspaces that require a focused,  
LOCAL COOLING SYSTEM in an open environment.
  - / Used in workspaces which contain dust or mist in a polluted environment.
  - / Used in workspaces that have a risk of poisonous  
gas leakage in high temperatures and enclosed environments
- "POWER COOL" is designed for a variety of conditions and applications.



# LOCAL COOLING INDUSTRIAL AIR CONDITIONER

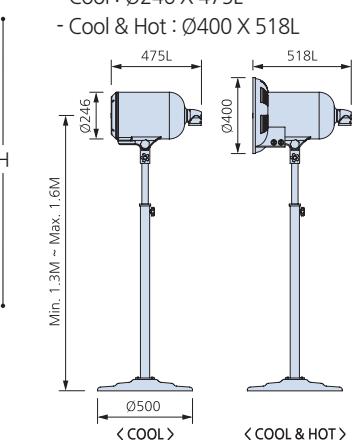
POWER COOL & HOT is a SPECIAL AIR CONDITIONER which utilizes compressed air generated by an air compressor.



## Specifications

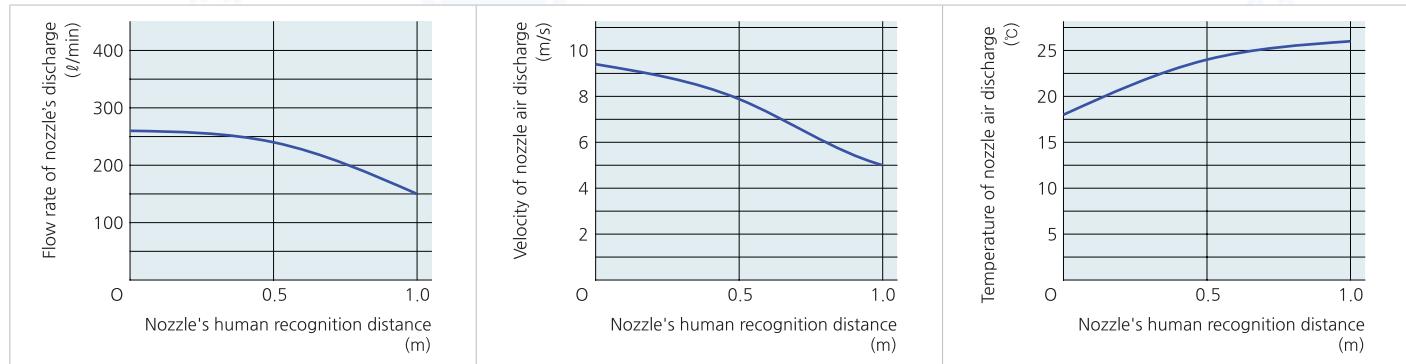
### POWER COOL & HOT

- Consumption of electrical power
  - Cool : 1,500W
  - Hot : 4,000W (1,000W @ Nozzle 1EA)
- Cooling capacity : 5,620 kcal/hr
- Heating value : 3,440 kcal/hr (860 kcal/hr @ Nozzle 1EA)
- Voltage rate : 220V 60Hz
- Composition : Air Chiller, Cool & Hot Nozzle 4 EA, \*Nozzle Lead Hose 4EA
  - \*Nozzle lead hose supplies cold air : Min. 3M ~ Max. 15M
  - ※ Main compressed air is supplied separately.
- Equipment size : 500W X 900L X 1120H



# The data for flow rate, velocity and temperature is calculated based on the Power Cool's human recognition and distance analysis.

**Test Condition :** Test Room : 5m X 6.2m X 2.8m / Test Room Temp. :  $31 \pm 1^\circ\text{C}$   
 Air Chiller Setting Pressure : 3.5 bar / Air Chiller Setting Temp. :  $7 \pm 1^\circ\text{C}$   
 Nozzle Lead Hose : 5m / Area of nozzle's air discharge : 452.4mm<sup>2</sup>

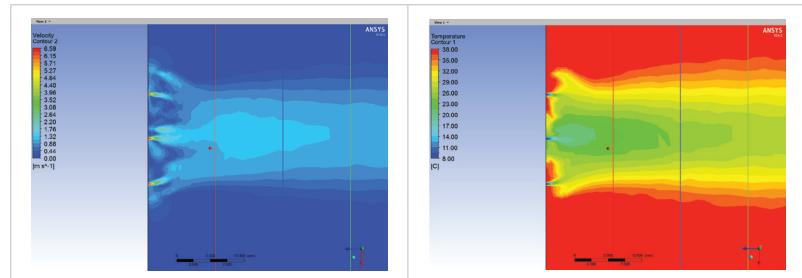


## Results of flow analysis for ANSYS program.

**Analysis :** Air Pressure : 3.5 bar  
 Test Room Temp :  $38^\circ\text{C}$   
 Inlet Cooling Air Temp :  $8^\circ\text{C}$

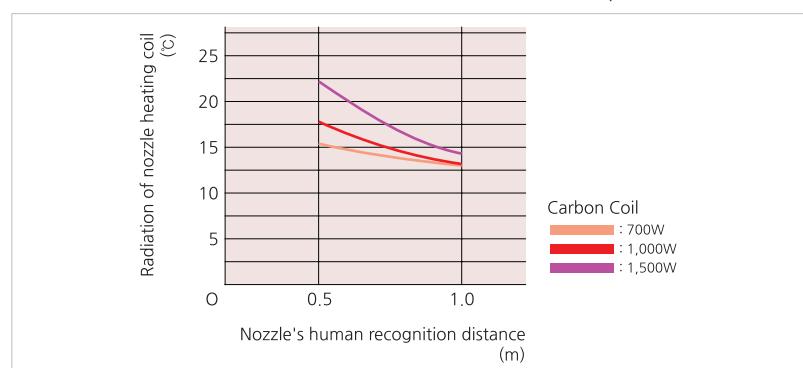
**Speed of nozzle air discharge.**

**Temperature of nozzle air discharge.**



**Power Hot :** The heat radiation zone of the nozzle's heating coil is calculated according to the nozzle's recognition of human distance and location.

**Test Condition :** Test Room : 5m X 6.2m X 2.8m / Test Room Temp. :  $10 \pm 1^\circ\text{C}$



**Human Motion Sensor.**

Saves energy by using a human motion sensor to focus air flow direction.



**Easily transportable for a variety of environments.**

Can be installed and moved anywhere.



**Convenient digital controller.**

Temperature controller, self-diagnostic check, and nozzle ON / OFF.  
 Automatic or manual heating sensor options.

## Power Cool Features

### Improves work environments :

Power Cool provides a comfortable environment for personnel that are working at floor height or in an industrial environment where air ducting is not possible. Traditional air ducting may be limited in many types of working environments. Cranes, moving equipment and temporary or outdoor work areas may limit the air ducting.

Power Cool provides a solution that improves a worker's environment and will increase their productivity, comfort and well-being.

### Controls energy efficiently :

Using the human motion sensor which is attached cooling nozzle, Power Cool will target the flow of air to the right area, saving energy and increasing efficiency.

### Comply with workplace condition laws and regulations :

Targeted cooling by discharging the compressed and cooled air from Power Cool to each cooling nozzle position.

※Optional : In cold weather, comply with local heating regulations by using the heat option.



**Power Cool is convenient and simple to use in any location  
where there is power and air hose access.**