Russells PCU-Series, portable conditioning units give you the maximum environmental testing flexibility. Your Russells portable conditioning unit will find a wide variety of temperature and humidity control uses in your lab and in the field including:

- Vibration testing
- Automotive “squeak and rattle” testing
- Custom test enclosures (remote)
- Environmental stress screening (ESS)
- Materials testing
- Spot heating or cooling
- Environmental forced air for avionics testing
- Ordinance temperature conditioning
- Elite PCU’s double as a stand alone test chamber

Performance:

- Temperature range for mechanical refrigeration, single stage: -4°F/-20°C to 350°F/177°C
- Temperature range for mechanical cascade and LN2 refrigeration: -100°F/-73°C to 350°F/177°C

Humidity: (PCUD Models)

- 20%RH to 95%RH in the range bounded by an 185°F/85°C maximum temperature and a 40°F/4°C minimum dewpoint.

Russells PCU’s are available in a variety of air flow, cooling and heating capacities. A Russells application engineer can assist you in selecting the chamber configuration and size that is most economical for your testing needs. Let Russells give you the competitive edge!
PORTABLE CONDITIONING UNITS-PCU SERIES

Standard Features:
- PCU liner is continuous TIG welded 300 series stainless steel.
- Non-setting oven grade fiberglass insulation, 0.25 K factor.
- Welded structural steel frame.
- Service panels removable with ¾ turn fasteners.
- Fan motors externally located.
- Silicone door gaskets.
- Heavy duty casters.
- Microprocessor temperature programmer controller.
- Solid state humidity sensor on humidity models.

Cooling:
- Low or zero ozone depletion refrigerants.
- Cascade or liquid nitrogen cooling.
- Cryogenic service control solenoid valve on LN2 models.
- Energy saving refrigeration bypass capacity control.
- Low stage desuperheater on cascade models.
- Oil pressure switches.
- Compressor suction and discharge pressure switches.
- Water cooled condenser on mechanical refrigeration models.
- Vapor tank and condenser ASME certified.
- Compressor overload protection.
- High stage compressor crankcase heater.
- Compressor head fans.
- Low stage oil separator.
- All piping joints silfos or silver soldered.
- Stainless steel compressor condensate pans.

Electrical:
- All wiring meets NEC standards.
- 120 volt control circuit transformer.
- Fully enclosed electrical panel.
- All circuits fused or circuit breaker protected.
- Full system function switches w/ system status pilot lights.
- All wiring numbered or color coded.
- High Temperature limit safety.
- Master heating circuit contactor.

Optional Accessories:
- Insulated flexible air ducts.
- 208, 230, or 460 volts power.
- Refrigeration sound deadening package.
- Air cooled condenser.
- Boost cooling system, LN2 or CO2.
- Running timer meter.
- Electrical disconnect switch.
- Humidity water demineralizer on humidity models.
- Explosion proof models.

Optional Instrumentation:
- Product safeguard redundant over/under temperature limit.
- Circular or electronic chart recorders.
- Computer communications, networking, data-logging software.