

# Model C3 Anemometer Features



## A new choice with uncompromising accuracy:

Second Wind is pleased to provide you with an improved version of the popular three-cup design used in wind assessments for decades. Both our calibrated and uncalibrated versions are manufactured to precise industry standards.

### Calibrated

Our Model C3C anemometer has been calibrated at the highly respected Massachusetts Institute of Technology's Wright Brothers wind tunnel.

### Uncalibrated

Customers with their own calibration capability can now choose this option.

## For more information:

Visit [www.secondwind.com](http://www.secondwind.com) to learn about this new product line:

#981 Second Wind C3 Anemometer w/ Boot

#982 Second Wind Calibrated C3C Anemometer w/ Boot

## Tougher materials stand up to the toughest environments

The Model C3 rotor is made of tough polycarbonate for exceptional durability and reliability. The Model C3 sensor base is also made of rugged polycarbonate, making it more resistant to damage during installation.

- Manufactured by Second Wind with exceptional quality control—all units are tested mechanically and electronically before shipping.
- A distinctive blue vinyl boot shields wiring for long-term performance.
- The C3 is manufactured to meet new standards and is RoHS-compliant—no toxic metals.

## Easier tracking

All models are individually laser engraved with serial number and date code, simplifying tracking and data analysis.

## Specifications:

- Conical cups measure 51 mm (2 inches) in diameter
- Rotor diameter is 190 mm (7.5 inches)
- Standard AC output, frequency proportional to cup rotational speed
- Shielded AC pickup coil, 4100 turns of #41 wire
- Four-pole Indox 1 magnet rotates with the cup assembly
- Fully hardened beryllium-copper shaft running in self-lubricating modified Teflon bearings, with protective boot to make the system dirt and water resistant
- Rated bearing PV (pressure-velocity) factor is 20,000
  - At 15 mph PV is approx. 500.
  - At 100 mph PV is approx. 2,000.
- Rotor assembly moment of inertia =  $68 \times 10^{-6}$  S-ft<sup>2</sup> (or  $92.2 \times 10^{-6}$  kg-m<sup>2</sup>)
- Distance constant = 10 feet (3.0 meters)
- Transfer Function:  $m/s = (Hz \times 0.766) + 0.324$   
 $[miles\ per\ hour = (Hz \times 1.714) + 0.725]$
- Accuracy: within 0.1 m/s (0.2 mph) for the range 5 m/s to 25 m/s (11 mph to 55 mph)

## Performance validated

Multiple tests—including performance data from hundreds of C3 units already in the field—and detailed wind tunnel comparisons involving hundreds of units—prove that the C3's performance is virtually identical to the industry's top-selling product.

