

FAQ's

How does the Kestrel CFM function work?

To measure volume airflow (CFM), simply select the duct shape that you will be measuring - either circular or rectangular - then enter the duct size, and hold the Kestrel into the air flow. Readings are automatically calculated and displayed on the screen in either cfm, m³/h, m³/m, m³/s or L/s. The Kestrel also features an averaging function that allows users to measure the air flow for a duct where the flow is variable. The user simply selects the averaging mode and traces the duct. It also has a hold feature if you need to take a measurement inside a duct that you can't see - just "hold" the value and it will be frozen on the screen until you can look at it. The Kestrel has an easy-to-read screen with step-by-step instructions on it to, making it extremely simple to use.

How can I be sure that the Kestrel's readings are accurate?

Every single Kestrel manufactured at NK is calibrated for every single value, either directly against NIST-traceable standards or against an intermediary standard that is calibrated daily. Every unit is shipped with a FREE Certificate of Conformity that states what calibrations were performed, and the certified performance specifications. For an additional charge, NK can provide a NIST-traceable Certificate of Calibration that specifies exactly which values were measured in each multi-point calibration, and details the calibrated standard used for testing. Kestrel's 30-day satisfaction guarantee covers accuracy concerns as well.

Can I customize my Kestrel?

Any Kestrel 4000 series Meter can be customized to suit your needs perfectly. You can disable any readings that aren't important to your application. Plus these Kestrel Meters feature User Screens, which are three screens that display any three readings at the same time. These screens can be customized to show the readings that are most important to you, or they can be turned off. Data storage is customizable as well. You can set the Kestrel to log data automatically - anywhere from every 2 seconds to every 12 hours, manually - with the press of the capture button, or both.

How does the Kestrel log data, and can it upload the data to a computer?

The Kestrel 4100 and 4200 feature a 1400+ data point log. The user can set the Kestrel to store data automatically at a predetermined interval (anywhere from every 2 seconds to once every 12 hours), and/or data can be stored manually with a single button press. Each data point is stored with the date and time, and can be viewed as in chart form. The minimum, maximum and average values are stored for each reading as well. Data can be uploaded to a PC using the available Kestrel Interface (available as USB or serial).

What's so great about the Kestrel impeller?

The Kestrel impeller measures 1 inch across, and turns on a Swiss precision pivot mounted on sapphire bearings. Its large size ensures accurate readings even if pointed off-angle from the wind, and its very low start-up speed allows measurement of the lightest puffs of wind. If damaged, a new calibrated impeller can be purchased for \$19 and popped in without tools, restoring like-new performance.

How does the Kestrel measure humidity so accurately?

The Kestrel features a patented dual temperature sensor configuration for rapid response and accurate measurement. Every Kestrel is calibrated against NIST-traceable standards, and can be recalibrated in the field with the Kestrel RH kit.

Do you really mean MADE in the USA?

Yes. The entire Kestrel line is designed and built in the USA. Some electronic components have to be sourced overseas these days, but we buy American wherever we can.

Who do I call if I have a problem?

You call us! From our Customer Service Representatives to the President of the company, we all answer the phone and know these products inside and out. If you have a problem, we'll fix it. Kestrels hardly ever break, but if they do, they're covered by a five-year warranty. They even carry a lifetime Customer Care Trade-In/Trade-Up warranty program that replaces damaged Kestrels (even if accidental) with a new unit for a significant discount.

Kestrel® Pocket Weather® Meters

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Concrete Placement

Plastic shrinkage cracks occur when the surface of the concrete dries rapidly and shrinks before it can gain sufficient tensile strength to resist cracking. When ambient conditions and concrete temperatures combine to produce conditions that create a high evaporation rate, the chances of the surface drying prematurely and shrinkage cracks forming increases. Measuring the relative humidity, ambient temperature and wind velocity right where the concrete is being placed can help prevent plastic shrinkage from occurring, and a Kestrel 3000 is the perfect solution. Accurate, quick-response readings give concrete professionals the information that they need to place concrete that won't crack. Or take advantage of the Kestrel 4000's data log and document that the work was done during the appropriate conditions.

Steel Bridge Coating & Lining

Bridges and other large steel structures are painted with coatings that protect the integrity of the steel and prevent corrosion. Contractors and inspectors pay great attention to the atmospheric conditions since they play a large part in the success of application as well as the long-term health of the coating. Most important are ambient temperature, relative humidity and dewpoint, as well as the surface temperature of the steel. Relative humidity must be monitored since in this application different coatings and linings require different specific air moisture contents to cure. Additionally, condensation is an important consideration and by monitoring the difference between the dewpoint and the temperature before, during and after the coating process, the likelihood of condensation is easy to predict. All Kestrel 4000 series meters measure both dewpoint and temperature, and feature customizable User Screens that can be programmed to display these readings so professionals can monitor the values that they need at the same time.



Home Inspections

A large portion of any home inspection will be dedicated to examining the heating and air conditioning systems. A Kestrel Pocket Air Flow Tracker is an invaluable tool for home inspectors for all the same reasons that they are commonly found in HVAC technicians' tool boxes. Quickly checking the consistency of warm and/or cool air in each room is as easy as entering the duct size and holding the Kestrel in the air flow. The Kestrel 4200 can even help home inspectors with mold and allergen testing. Both the Kestrel 4100 and 4200 log data with the press of a button, allowing home inspectors to save data and review it back at the office when writing up their report.

Kestrel® Meters are designed to be portable, rugged and affordable, and are GUARANTEED for five years.

Since Accuracy and Reliability is Paramount, Every Single Kestrel® Meter is NIST-Traceable Calibrated.

Heating, Ventilation, Air Conditioning & Refrigeration

HVAC/R system commissioning and verification can determine that a system is working correctly, or can identify a problem area in a faulty system. Volume air flow is a calculation based on the air velocity and the size of the area that it's flowing out of, and is one of the most important measurements HVAC/R professionals require. Previously, technicians were forced to determine the area of the duct and then calculate the CFM. Kestrel Pocket Air Flow Trackers automatically calculate the CFM, making the technician's job easier and faster. The Kestrel 4100 was the first device to offer this automatic feature, and was awarded the prestigious Dealer Design Award, recognizing it as a testing product that helped technicians save time on the job. The new Kestrel 4200 also measures grains per pound, and is quickly becoming an essential piece of equipment for the dehumidification and mold inspection and remediation professional. Both the 4100 and 4200 also feature a powerful 1400+ point data logger, and are totally customizable with User Screens that allow technicians to program their Kestrel Tracker to display any three readings simultaneously.



Exterior Painting

General contractors are constantly using materials that are temperature sensitive. From Bondo to exterior paint, they need to ensure that the environmental conditions are conducive to curing. For example, paint the exterior of a house when it's too cold or humid, and the paint will end up peeling. And temperature is even more important when painting porous materials - like brick - since it absorbs and retains both heat and cold. A Kestrel 2000 is small and rugged enough to keep in the glove box of the truck, ready for checking the conditions on questionable days.

Crane Operations

Strong winds impose additional loads on a mobile crane and affect the crane's stability, and most manufacturers state the maximum wind speed limits for each specific crane. Operators must take into consideration the boom length and height of the load when assessing windy conditions, and gusting wind affects a crane differently than a constant wind. Additional influences that jeopardize the safety of operating a crane in windy conditions are the wind direction, as well as surrounding structures that can cause a "tunnel effect". The Kestrel 1000's patented impeller gives crane operators the crucial wind speed data they need, accurately and instantly. When in the Max Wind mode, the Kestrel Meter will store the strongest gust. In cold conditions, the Kestrel 2000 gives the vital temperature and wind chill data needed to assess shock loading, crane hydraulics, and derating of the crane, as well as the safety of the personnel working in the cold conditions.

