



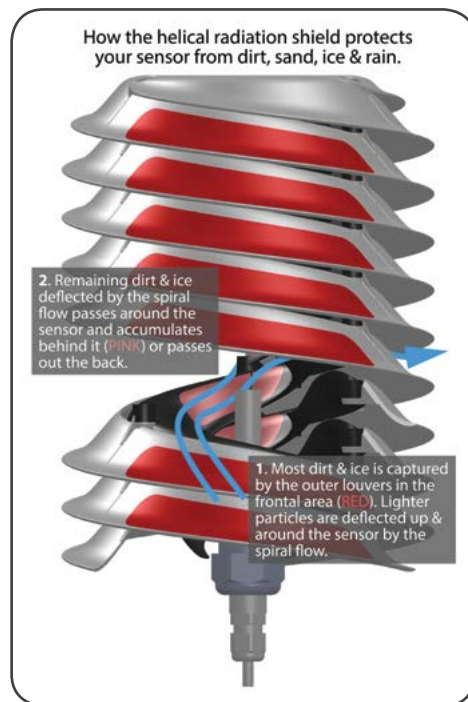
- AGRICULTURE
- AIRPORTS
- BUOY & MARINE
- COASTAL

- HYDROLOGY
- INDUSTRIAL & PLC
- INTRINSICALLY SAFE
- IOT

- METEOROLOGY
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- ROAD MANAGEMENT
- POLAR AND WINTER

- SHIPS
- SKI LIFT & SNOW MAKING
- SMART CITIES
- WEATHER STATIONS

MeteoShield® Pro 2020



MeteoShield® - Professional 2020

Naturally aspirated helical solar shield/screen. **Double-helix shape eliminates temperature errors** from solar radiation more effectively than conventional multi-plate shields while offering unsurpassed **protection from the sun, dirt, rain, snow, sand & dust.**

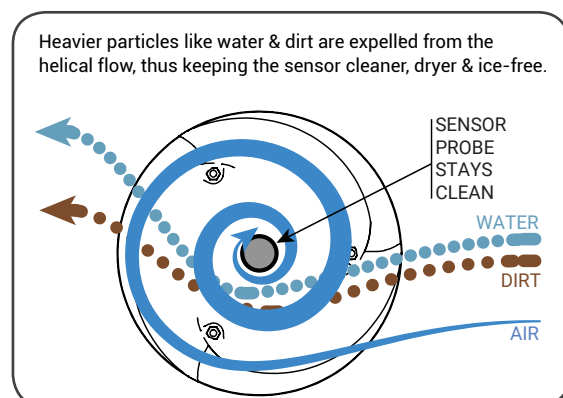
Double-helix increases clean air flow and rejects dirt particles away from the sensor, while keeping sensors cleaner than traditional multi-plate and fan aspirated shields.

Mean overheating 0.1 °C for >800 W/m² wind <1 m/s

- More accurate with lower measurement uncertainty than fan-aspirated shields
- WMO compliant temperature, humidity and dew point
- Protection of sensors from water spray and dirt buildup
- Exceptional water shedding and return to accuracy after rain
- Precision even in high-reflectivity environments: snow, desert, city, marine...
- Damage and impact resistant down to -60°C, UV resistant, salt water resistant.

Higher accuracy and reliability than fan-aspirated shields in all environments

Keeps your sensors clean



Helical MeteoShield® Pro



Minimal dirt buildup over one winter season in a road-side weather station.

Competitor Multi-Plate Radiation Shield



Significant dirt buildup common to all multi-plate solar radiation shields over the same time period.

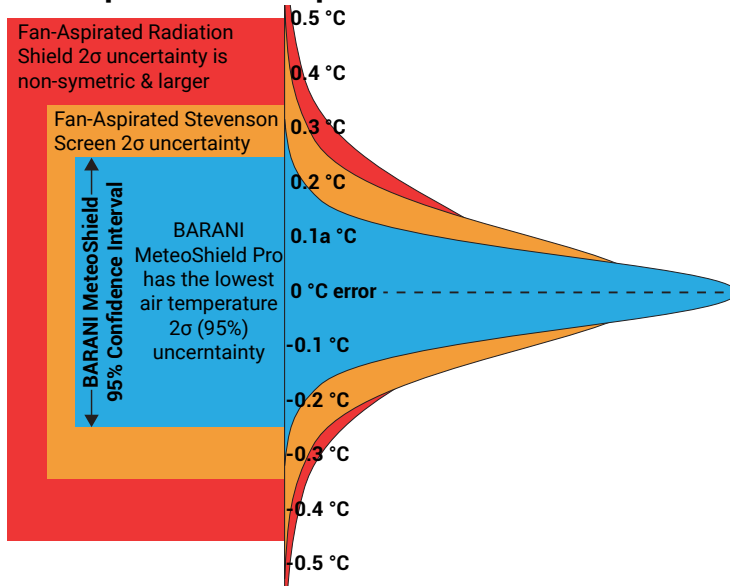
Best-in-class reliability and accuracy for critical applications where absolute temperature accuracy is important

UPGRADE TO HELICAL RADIATION SHIELDS





Atmospheric Air Temperature Measurement Error



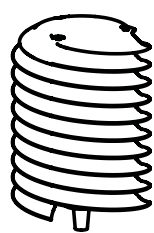
"Despite the fact that the (2015) BARANI shelters are not artificially ventilated, their performance is better than our artificially ventilated compact shelter."

"The (2015) BARANI helical shelters have shown excellent results with very limited heating under strong solar radiation. The mean overheating is as low as 0.2 °C for medium global solar radiation and low wind speed (<1 m/s).

It is unclear why the (2015 MeteoShield® Professional) overheating is lower for higher global solar radiation."

- quoted from an independent comparison by the Royal Meteorological Institute of Belgium

Helical MeteoShield with a standard precision sensor maintains WMO accuracy requirements over 99 % of the time.



WMO LIMITS

Permissible sensor error band

WMO LIMITS

°C

3.0

2.0

1.0

0.5

0.1

0

-0.1

-0.5

-1.0

-2.0

-3.0

2 m/s

1 m/s

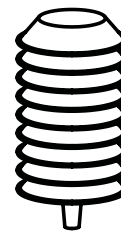
0

1 m/s

2 m/s

WIND SPEED

Multi-plate solar shields with expensive high precision sensors cannot maintain WMO accuracy requirements over 95 % of the time.

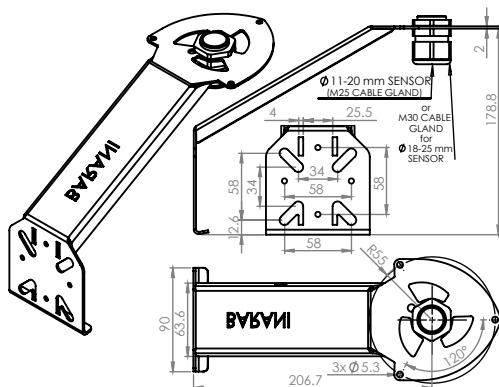


SHIELD ERROR = RED/GREEN
SENSOR ERROR BAND = YELLOW

- 2020 shield features 50% better accuracy than the 2015 shield
- Impact, UV and salt water resistant
- Design based on WMO testing
- Reduce sensor maintenance
- Made in Slovakia & Made in USA versions

Universal radiation shield mount

2 mm white powder coated stainless steel



Double-Helix Ventilation

Helical radiation shield shape ventilates better than multi-plate radiation shields while maintaining better temperature sensor protection from dirt, sand, dust, rain, snow and ice, thus extending sensor life and long-term measurement stability.

It performs better than many fan-ventilated radiation shields in high reflectivity environments.

