

Fan-Aspirated Radiation Shield

Accurate measurement of air temperature and/or relative humidity with minimal power draw



NEW 24 V DC OPTION!



Case Study

Eight TS-100 Fan-Aspirated Radiation Shields provide air temperature measurements to monitor long-term ecological health dynamics within wet eucalyptus forest at the Warra long-term ecological research site (LTER) in Tasmania, Australia.

Optimized Design for Efficiency and Durability

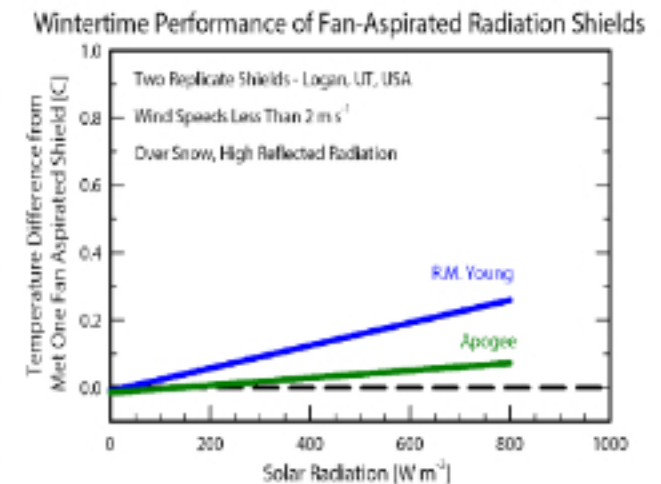
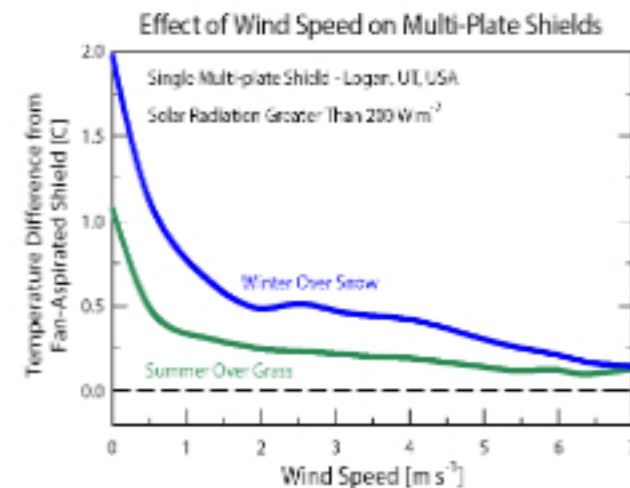
A curved inlet redirects air into the shield and funnels it past the sensing area, which allows for a lower power requirement than other fan-aspirated shields on the market. The fan has an ingress protection rating of IP55, which minimizes moisture and dust ingress. Fan speed and power can be further reduced when warranted by environmental conditions.

Sensor Compatibility

The shield accommodates multiple sensor options: air temperature sensors, air temperature/relative humidity probes, or combinations of both categories. New for 2022, Apogee now offers a 24 V DC fan option (TS-200 series).

See our website for available sensor packages

	TS-100	TS-200
Difference Among Individual Replicate Shields	Less than 0.1 C	
Aspiration Rate	6 m s ⁻¹ at full-speed; 3 m s ⁻¹ at half-speed	
Fan Input Voltage Requirement	10.8 to 13.2 V DC	14.0 to 27.6 V DC
Fan Current Draw	80 mA at full-speed; 25 mA at half-speed	
IP Rating	IP55	
Dimensions	220 mm height, 270 mm diameter	
Mass	840 g	



Left: Naturally-aspirated shields are subject to significant measurement errors when wind speeds are less than 3 m s⁻¹. Errors increase when snow covers ground surface. Right: The performance of Apogee (model TS-100) and R.M. Young (model 43502) fan-aspirated shields relative to a Met One (model 076B) fan-aspirated shield.