

*Typical Industries*

*Automotive*

*Textile*

*Third party testing labs*

*University testing labs*

*Aerospace/aviation*

*Marine*

*Transportation*



**New! Thermo Scientific Horizon Series**  
Fog Testing System

**reliable**

consistent performance

**Thermo**  
SCIENTIFIC

# The Perfect Fit

Temperature control  
products for  
any application



As an innovative leader in temperature control, we have the expertise to enable you to optimize your liquid cooling and heating applications while increasing productivity and reducing operating costs. With over 50 years of industry leading service and countless successful installations around the world, we collaborate with you to provide product and applications expertise to meet the most demanding temperature control requirements. From bio-tech and pharmaceutical to printing and semiconductor, world class companies and industry leaders continue to make Thermo Scientific temperature control products their first choice.

Select the product that is right for your application from the most comprehensive portfolios of temperature control solutions that deliver scalable product offerings ranging from bench top research to large process manufacturing. Our new and innovative products – developed from customer feedback to ensure fulfillment of every need – represent a giant leap forward in performance, configurability and technology that provide unparalleled advantages including:

**A Perfect Fit:** Whatever your application or your budget, you can configure the most flexible, cost-effective temperature control system that suits your specific requirements.

**Innovation:** Our research and development team is focused on designing innovative products based on your feedback.

**Global Service and Support:** With our extensive global footprint service and support is just a click or phone call away.



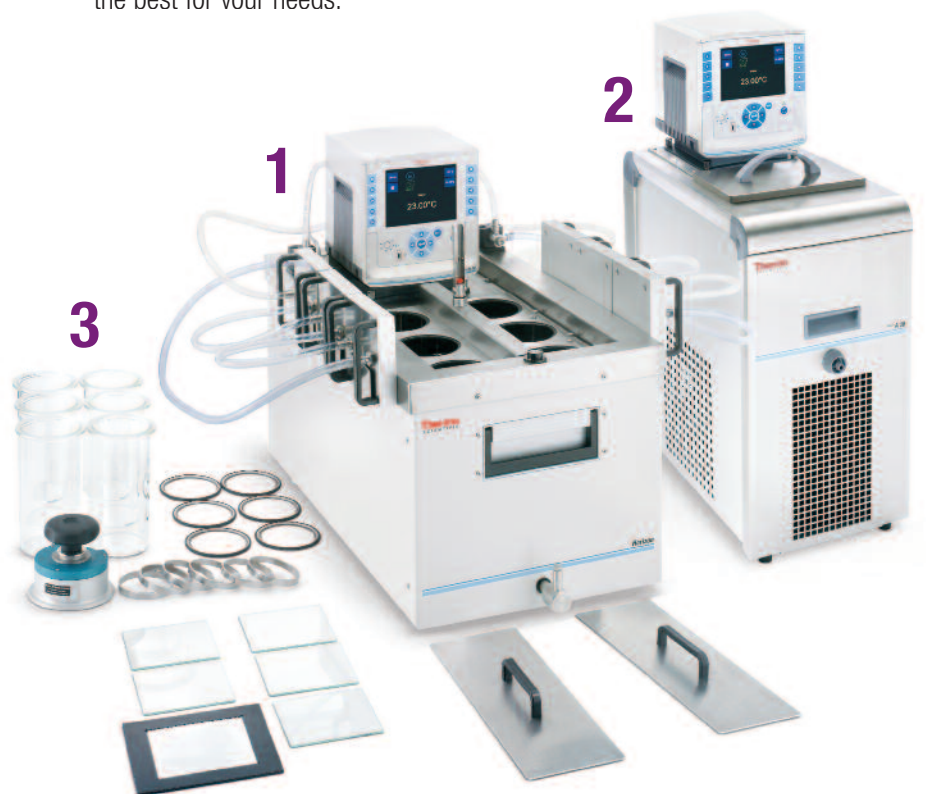
## Introducing the **NEW! Thermo Scientific Horizon Fog Testing System**

You can rely on the Horizon FTS to meet your needs when testing raw materials for VOC's regardless of the standard you choose to follow. Whether you are testing leather, vinyl, textiles, or plastics, your results will be consistent and accurate.

**Reliable:** designed with robust components for dependable temperature stability from one sample to the next.

**Consistent:** maintains constant test conditions to produce repeatable results between test batches, ensuring that the procedure is replicated every time and fulfills the DIN, ISO, and SAE standards.

**Performance:** whether you need basic temperature control, ramp programs, or data analysis, choose the controller that is the best for your needs.



Horizon Fog Testing System above is configured with the PC-FTS controller, the PC200-A28, and the reflectometric accessory kit.

# Thermo Scientific Horizon FTS

Only 3 Steps to Configure the Perfect Fit

# 1

Choose the controller for your fog testing system



Choose the controller with the best features and performance for you to test and qualify materials in accordance with the DIN, ISO and SAE standards.

### What's included with the Horizon FTS:

Control head, bath, funnel, cut to length hose for the cooling plates, hose clamps, drain fitting, and hex key for level indicator, 6-foot power supply.

Feature	AC-FTS	PC-FTS
Ambient +13°C to 200°C	●	●
3.0 kW heater	●	●
Force/suction pump	●	●
Remote sensor, multifunction, & USB port	●	●
Languages	*	**
Ramp programming	●	●
Multiple information/data display		●
Quick navigation keypad		●
Large, color LCD screen		●
2-year warranty	●	●
CE / WEEE / RoHS compliant	●	●
<b>Physical Dimensions (HxWxD)</b>		
Centimeters	42.5 x 59 x 60	42.5 x 59 x 60
Inches	16.7 x 23.3 x 23.6	16.7 x 23.3 x 23.6

\*AC-FTS languages: English, German, French

\*\*PC-FTS languages: English, German, French, Spanish, Italian, Mandarin, Japanese

# 2

Choose the cooling system



### Accel 250 LC

When cost and space are important, this recirculating chiller is an economical choice and the small footprint saves space in the lab.

### Specifications

<b>Heating Capacity</b>	
230V/50Hz at 20°C	2 kW
115V/60Hz at 20°C	1.2 kW
<b>Cooling Capacity at 20°C°</b>	250 Watts
<b>Working Temperature Range</b>	-10°C to 80°C
	14°F to 176°F
<b>Temp Stability</b>	+/- 0.1C
<b>Pump</b>	
Total Pressure	300 mbar (4.4 psi)
Maximum Flow	15 lpm (3.96 gpm)
<b>Reservoir Volume</b>	2.8 liters (.74 gallons)
<b>Unit Weight</b>	30 kg (66 lbs)
<b>Physical Dimensions (HxWxD)</b>	
Centimeters	62 x 23.2 x 48.7 cm
Inches	24.8 x 9.1 x 19.2 in
<b>Compliance</b>	CSA/UL, CE, WEEE, RoHS

### Features & Benefits



**Large volume tank** with 6 flasks allows you to do more tests at once saving valuable time and money



**Ease of use** fill vent on top of unit; drain located on front of unit; step-by-step instructions for setting up the unit



**Easy to maintain** indicator

# 3

## Choose the test method

### The Reflectometric method accessory kit

This method uses a refractometer to quantify the amount of material collected on the glass plate during testing. The kit contains the following accessories:

- 6 Cooling plates
- 6 Glass beakers
- 6 Metal rings
- 6 Elastomer sealing rings
- 6 Support rings
- 6 Square glass plates
- Frame for glass plates
- Sample cutter
- Set of covers
- Refractometer

### The Gravimetric method accessory kit

This method uses a gravimetric scale to measure the mass of the material gathered on the foil during testing. The kit contains the following accessories:

- 6 Cooling plates
- 6 Glass beakers
- 6 Metal rings
- 6 Elastomer sealing rings
- 6 Support rings
- 6 Round glass plates
- Round foils
- Sample cutter
- Set of covers

Notes: Refer to the ordering information for the part #. Heat transfer fluid oil and DIDP is sold separately. All accessories can be purchased separately.



#### SC100-A10

This refrigerated bath/circulator heats and cools across a wide temperature range with a working bath area. It also has the capability to circulate externally so that it can serve other applications within your lab or facility.



#### PC200-A28

This refrigerated bath/circulator has the same features as the SC100-A10, plus the PC200 controller has the ability to provide real-time graphs with temperature ramping. Pair it with the PC-FTS and the matching controllers will simplify using the Horizon FTS.

2 kW	2 kW
1.2 kW	1.2 kW
250 Watts	320 Watts
-28°C to 150°C	-28°C to 200°C
-18°F to 302°F	-18°F to 392°F
+/- 0.1C	+/- 0.01C
300 mbar (4.4 psi)	940 mbar (13.6 psi)
17 lpm (4.49 gpm)	24 lpm (6.3 gpm)
6 liters (1.6 gallons)	10 liters (2.6 gallons)
27.5 kg (60.6 lbs)	36 kg (79.2 lbs)
63.2 x 22.1 x 41.4 cm	74.87 x 27.3 x 48.3 cm
24.9 x 8.7 x 16.3 in	29.5 x 10.7 x 19 in
CSA/UL, CE, WEEE, RoHS	CSA/UL, CE, WEEE, RoHS



**View liquid level**  
to ensure proper fluid levels are maintained



**Sealed bath surface** prevents the bath fluid from condensing on the glass plate



**Robust pump design** for uniform sample temperatures

# Ordering Information

Horizon Fog Testing System Model	Part Number
AC-FTS	156-8005
PC-FTS	159-8005

Refrigerated Circulators Model	115V/60Hz	100V/50-60Hz	230V/50Hz	220V/60Hz
SC100-A10	152-5108	152-5106	152-5101	—
PC200-A28	157-5288	157-5286	157-5281	—
Accel 250LC	223111800	223211600	223211100	223111900

Accessories	Description	Part Number
Cooling plates (requires 6)	Aluminum and stainless steel plates cooled by the refrigerated circulator	333-0285
Glass beakers (requires 6)	Heat-resistant glass beakers have a flat base; material samples are placed on the base of the beakers for test	333-0276
Metal rings (requires 6)	Chrome-plated steel rings secure sample on base of beaker	333-0286
Elastomer sealing rings (requires 6)	Used as a seal between the beakers and glass plates	333-0278
Support rings (requires 6)	Used for stabilizing sealing rings	002-1658
Square glass plates (requires 6)	Floated glass plates used for fogging condensation sample. Use for the Relectometric testing method	333-0288
Frame for glass plates (requires 1)	Aluminum frame protects fogging condensation sample from being influenced or smudged	999-0067
Round glass plates (requires 6)	Seals the round aluminum foils.	333-0443
Round foils (requires 1)	Contains 200 foils for the gravimetric testing method. 1 foil needed per test sample	333-0442
Sample cutter (requires 1)	Designed to cut sample material with 80mm diameter	999-0062
Heat transfer liquid (requires 40 liters)	Thermal liquid that is soluble in water and can be used up to 150°C	999-0063
Set of covers (requires 1)	Set of two half covers to prevent contamination and/or evaporation of heat transfer liquid	333-0284
Reflectometer (requires 1)	Used to measure reflection of material at a 60° angle	999-0224
DIDP control fluid	Used for the standard that validates testing	095935

Accessories Kits	Description	Part Number
Gravimetric method accessory kit	Accessory kit for easy initial start-up (heat transfer fluid not included)	096-451
Reflectometric method accessory kit	Accessory kit for easy initial start-up (heat transfer fluid not included)	096-452



Horizon FTS Accessories

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