



***TSI leads when it comes to instruments for particle counting, aerosol detection, and particle concentration measurement.***

Ultrafine Water-based Condensation Particle Counter

**Model 3786**

***Detects particles as small as 2.5 nm at an aerosol flow rate of 0.3 L/min.***

The Model 3786 UWPC is designed primarily for researchers interested in airborne particles smaller than 20 nm. It features a special sheath-air flow design that improves response time and produces a sharp lower cutoff size, and single particle counting with continuous, live-time coincidence correction for accurate measurements. This UWPC is well suited for atmospheric and climate research, particle formation and growth studies, environmental monitoring, nanotechnology research, and mobile aerosol studies.

Water-based Condensation Particle Counter  
**Model 3785**

***This WCPC detects particles down to 5 nm at concentrations up to  $10^7$  particles/cm<sup>3</sup>.***

The Model 3785 WCPC is a general-purpose counter that features a fast response and an aerosol flow rate of 1.0 L/min. It uses two detection modes, continuous, live-time coincidence corrected single particle counting and photometric counting, for accurate measurements at concentrations up to  $10^7$  particles/cm<sup>3</sup>. We recommend the Model 3785 for basic aerosol research, environmental monitoring, atmospheric research, health effects studies, inhalation and exposure studies, and mobile aerosol studies.

## Ultrafine Condensation Particle Counter Model 3776

**Detects particles down to 2.5 nm with extended single particle counting up to 300,000 particles/cm<sup>3</sup>.**

The Model 3776 UCPC is designed primarily for researchers interested in airborne particles smaller than 20 nm. It uses a special sheath-air flow design that improves response time and increases counting efficiency. It features single particle counting with a continuous, live-time coincidence correction for accurate measurements, an anti-spill design, water-removal capability, built-in data logging and storage capabilities, a removable memory card, and USB and Ethernet connectors. This UCPC is ideally suited for atmospheric and climate research, particle formation and growth studies, combustion and engine research and nanotechnology applications.

## Condensation Particle Counter Model 3775

**This CPC detects particles down to 4 nm at concentrations up to 10<sup>7</sup> particles/cm<sup>3</sup>.**

The Model 3775 CPC is a general-purpose counter that accurately measures concentration over a wide range. It features two detection modes, an extended single particle counting with continuous, live-time coincidence correction, plus photometric counting for concentrations up to 10<sup>7</sup> particles/cm<sup>3</sup>. Model 3775 also features an improved transition between the two counting modes, anti-spill design, water-removal capability, data logging and storage capabilities, a removable memory card, and USB and Ethernet ports. We recommend this CPC for basic aerosol research, environmental monitoring, health effects studies, inhalation and exposure studies, combustion research and more.

## Condensation Particle Counter Model 3772

**A compact, full-featured CPC that detects particles down to 10 nm.**

The Model 3772 utilizes single particle counting with continuous, live-time coincidence correction to accurately measure concentrations up to 10<sup>4</sup> particles/cm<sup>3</sup>. It's ideally suited for applications that do not require measurement of high concentrations, including basic aerosol research, filter and air-cleaner testing, particle counter calibration, particle shedding and component testing, and more. This CPC also features an anti-spill design, water-removal capability, built-in data logging and storage, removable memory card, and USB and Ethernet ports. It requires an external vacuum pump (sold separately).

## Condensation Particle Counter Model 3771

**A low-cost CPC for measuring particles down to 10 nm.**

Our basic CPC offers surprising performance features. It detects particles as small as 10 nm and utilizes single particle counting with continuous, live-time coincidence correction to accurately measure concentration up to 10<sup>4</sup> particles/cm<sup>3</sup>. It features an anti-spill design, water-removal capability, and has USB and Ethernet ports. An external vacuum pump is required (sold separately). This makes the Model 3771 a good choice for basic aerosol research, filter testing, and particle shedding and component tests.

### CPC Accessories (available separately)

376060	Particle Size Selector (page 34)
376061	Additional diffusion screens for Particle Size Selector (Qty. 12)
3032	Vacuum Pump for 3771 and 3772 CPCs (page 35)

Model	3786	3785	3781	3776	3775	3772	3771	3007
Minimum Particle Size (nm, 50% efficiency)	2.5	5	6	2.5	4	10	10	10
Upper Concentration Limit (particles/cm <sup>3</sup> )	10 <sup>5</sup>	10 <sup>7</sup>	5 x 10 <sup>5</sup>	3 x 10 <sup>5</sup>	10 <sup>7</sup>	10 <sup>4</sup>	10 <sup>4</sup>	10 <sup>5</sup>
Response Time (sec, 95% response)	<2	<2	<2	<1 <sup>†</sup>	<4 <sup>†</sup>	<3	<3	<9
Aerosol Flow Rate (cm <sup>3</sup> /min)	300	1000	120	50	300	1000	1000	100
Condensing Liquid	Water			n-butyl alcohol				Isopropanol
SMPS <sup>‡</sup> Compatibility	Yes		No	Yes			No	
Data Logging Capability	No		Yes				No	Yes
AIM Software	Yes							
Display Type	VFD <sup>§</sup>		LCD	Color VGA		LCD	None	LCD
Vacuum Source	Internal					External		Internal

<sup>†</sup>High-flow mode

<sup>‡</sup>Series 3936 Scanning Mobility Particle Sizer spectrometers

<sup>§</sup>Vacuum Florescence Display