

Cascade Impactors

Airborne particulate matter affects each of us in numerous ways. Characterizing that particulate matter, in terms of its mass and/or chemical content, gives us insight into ambient air quality, atmospheric composition, vehicle emissions, industrial particle emissions, and many more applications.

For over 30 years, Microorifice Uniform Deposit Impactors (MOUDI™) manufactured by MSP® have been widely used for collecting airborne particles in a size-segregated fashion, allowing researchers to learn more about the morphology and chemical composition of the sampled particles. Each MOUDI™ stage has thousands of precision drilled holes to reduce pressure drop and increase uniformity of particle deposition.

TSI's suite of cascade impactors can collect particles with aerodynamic diameters (cutpoints) from 10 nm to 10 µm, in 3 to 13 different size fractions, and at flow rates of 2, 10, 30 or 100 L/min.

To learn more about TSI's cascade impactors, take a look at our individual offerings or contact a member of TSI's team today!

Real-Time Quartz Crystal Microbalance (QCM) MOUDI™

Model 140 QCM MOUDI™

The QCM MOUDI has a 2.5-µm inlet and six stages with sharp collection efficiency curves and calibrated cutpoints of 960, 510, 305, 156, 74 and 45 nm at 10 L/min inlet flow rate. The QCM MOUDI provides excellent mass measurement accuracy thanks to the integrated humidity conditioning system that ensures reliable coupling of aerosol particles to the quartz crystal sensors, and eliminates undesirable solid particle bounce. With the QCM MOUDI, setup and measurement time has gone from hours to minutes allowing the user to collect size fractionated aerosol masses, in real time (1 Hz data collection), from tens of nanograms up to a few hundred micrograms.

Accessories (available separately)

Specify	Description
140-HFSS	High Flow Sampling System
0140-01-1010	Impactor Stack, QCM MOUDI, 6 stages
0140-98-1308	Replacement QCM Crystal/Plate
3334-10	Diluter, 10:1 @10 L/min
3334-100	Diluter, 100:1 @ 10 L/min

