

Quality is more than a word

ESPEC

Settling Dust Test Chambers



ESPEC NORTH AMERICA, INC.

Settling Dust Features

ESPEC dust chambers provide a low-mess solution to common settling dust test requirements for automotive components and electronics cabinets. Our deep W-shaped hopper provides better collection and dispersion dust without needing a vibration unit to shake the dust to the bottom of the collector.

These chambers have a unique clamshell lid for easier, cleaner loading, compared with traditional top-loading designs. Optional reach-in glove ports allow rotating the test sample without opening the door.

The touch screen controller allows setting the duration of the agitation, the settling time of the dust, and the overall test time. The optional underpressure vacuum is also managed from the controller.

Standard Features

- All stainless steel construction for easy cleaning
- Easy-access clamshell door with viewing window and light (powered lift for EDC-54 model)
- W-shaped hopper for dust collection and dispersion
- Mesh product shelf over the hopper
- HEPA filter for exhaust air, flange provided for venting
- Two inch cable port
- Touch-screen controller

Applicable Test Standards

Automotive standard for light fixtures SAE J575 and J2139 require settling dust test with Portland cement.

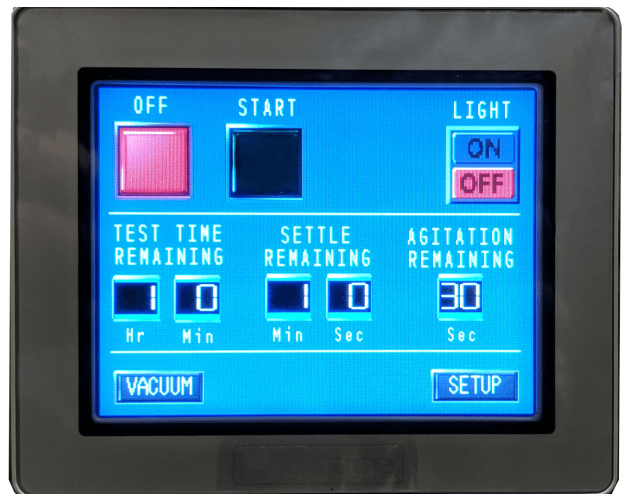
ISO 20653 standard of Ingress Protection (IP) levels 5K and 6K require dust testing: IP 5K Dust shall only penetrate in quantities which do not impair performance and safety; IP 6K Dust shall not penetrate.

The IEC 60068-2-68, method LA2 and 60529 IP tests may require underpressure of the test sample.

The dust chambers can be used with all grades of Arizona road dust, talcum powder, or Portland cement.



Settling dust chamber starting an agitation cycle.



Simple touch-screen controller for setting and monitoring.



The W-shaped hopper collects the dust after agitation. (Shown without the mesh shelf installed.)

Specifications

Settling Dust Chamber Models

Model	Interior Volume	Interior (W x D x H)	Exterior (W x D x H)	Power	Compressed Air
EDC-27	27 cu. ft.	36" x 36" x 30" (914 x 914 x 726 mm)	54" x 40" x 53.3" (1372 x 1016 x 1354 mm)	115 V	80-120 psig (10 SCFM)
EDC-54	54 cu. ft.	72" x 36" x 30" (1829 x 914 x 914 mm)	90" x 53.56" x 64.5" (2286 x 1360 x 1638 mm)	115 V	80-120 psig (20 SCFM)



Unique clamshell design makes loading the chamber easy and mess-free. (EDC-27)



Powered door lift for larger model is standard. (EDC-54 shown with optional reach-in ports.)

Options

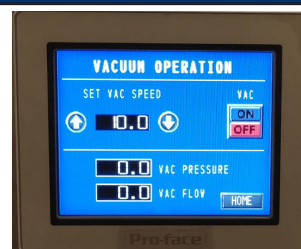
- Compressed air moisture filter system to maintain dryness, ensures dust moves freely.
- Under-pressure system (see below)
- Two reach-in glove ports
- Casters for portability
- Supply of Arizona road dust: course, medium, fine, or ultrafine.

Under-pressure system

This optional feature is designed for Intrusion Protection (IP) rating testing of Category 1 electrical enclosures "with underpressure." An evacuation pump creates a slight vacuum in device under test.

This system includes a 2" vacuum port inside the chamber, an external filter (shown at right), and vacuum control from the touch screen.

Achieve up to 10 CFM vacuum flow or 8" water-column underpressure.



Vacuum control screen with speed setting and readout.



External filter protects vacuum and room from dust.

Watch the video demonstration: espec.com/dust

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DANGER

Not for use with specimens which are explosive or flammable, or which contain such substances. To do so could be hazardous, as this may lead to fire or an explosion.